

ATHLETIC JOURNAL



Training for the Shot

by W. H. Haylen

Baseball Questions Answered

at a Recent Clinic

by John H. Kaba

The 1939 Basketball

Championship

REDUCE TAPE IRRITATION WITH NEW BIKE WEB

NEW BIKE WEB
Formula 87

TRAINERS TAPE



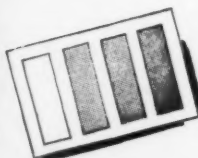
LESS ALLERGIC: Scientific patch tests made by independent allergists show Formula 87 fifty per cent better than the nearest competing brand tested, in reducing the occurrence of painful inflammation due to irritation from adhesive.



MINIMUM DETERIORATION: Formula 87 is a long life tape. Its deterioration due to extremes of heat and cold or other atmospheric conditions is extremely slow. In this it is outstanding.



LESS CREEP: Laboratory tests show that Formula 87 not only gives a minimum of creep when fresh, but maintains this quality even when aged.



PURE WHITE: Formula 87 is the only adhesive mass pure white in color. It is white because of its freedom from many of the impurities which may cause irritation.

New Bike Web Trainers Tape cuts down allergy and has less creep and deterioration with age

THE development of this new adhesive—Bike Web Formula 87—represents the most important improvement in adhesive for athletic use in many years. Formula 87 brings to coaches and trainers a greatly improved adhesive—a pure white adhesive which will not only adhere immediately and hold firmly but also includes new and exclusive features!

Tests show that a high percentage of athletes are susceptible to irritation from adhesive—many seriously so. Formula 87, through the elimination of ingredients found to be positive irritants and the use of a more pure rubber, so far reduces this irritation

that in patch tests made at a leading mid-western medical school it was shown to be 50% *less irritating than the nearest competing brand tested!*

And that's not all! Not only does Formula 87 reduce irritation, but this new adhesive resists deterioration with age—reduces creep—and retains its tackiness over longer periods of time.

Every coach and trainer wants the best supplies for his athletes—every coach and trainer will want Formula 87 adhesive tape! Get in touch with your dealer—ask him about Bike Tape Formula 87. Try it and see for yourself what a difference this new tape makes.



Equip Your Team With The **EPLER** SIX-MAN FOOTBALL SHOE



Now that six-man football is established as a major sport in thousands of high schools throughout the country, equipment for the players is a matter of permanent concern. Stephen Epler, the man who originated the game, has developed a shoe to meet its demand for speed with safety. Note the rubber cleats, scientifically placed for digging power, for lateral as well as forward motion. Note

the felt-padded tongue for easier punting, the special kicking toe for protection plus true and long ball flight. Built over a Scientific Last, this special six-man football shoe provides perfect fit. Shock-proof insoles of sponge rubber add an extra ounce of comfort. Slant-cut tops prevent binding at heel cords. Give your team the advantage of the Epler football shoe, the right shoe for the game.



UNITED STATES RUBBER COMPANY

1790 BROADWAY

NEW YORK CITY

CONTENTS

for May, 1939

PAGE

5	Everything and Anything in Baseball	
5	Baseball Questions Answered at a Recent Clinic . . .	John H. Kobs
6	Breaking Up the Delayed Double Steal	James Lymper
7	How Champions Train	
7	Training for the Broad Jump	Harry Trotter
9	Training for the Shot Put	Ward H. Haylett
11	Illustrations of Discus Throwers	
12	Night Baseball	E. B. Karns
13	Suggestions for Increasing Interest in Track and Field Athletics	
		James Pelley
15	The 1939 Basketball Championships	
15	Alabama	Dewey Cox
15	Arizona	Frank Brickey
16	Colorado	Don DesCombes
16	Florida	Harry G. Kemmer
18	Idaho	A. Martindale
18	Illinois	James A. Laude
19	Kansas	Ollie C. Thomas
19	Kentucky	Herman Hale
19	Maine	W. L. Mansfield
20	Missouri	Claude Mikkelsen
20	Montana	
	20 Class A	J. A. Thompson
	21 Class B	A. V. Himsl
24	Nebraska	
	24 Class C	Ray Jenkins
	24 Class B	N. A. Sullivan
24	Nevada	Lee Liston
26	New Mexico	Robert Pierce
26	North Dakota	Ernest H. Gates
47	Ohio	Luther Hosfield
52	South Carolina	
	52 Class B	Lyles Alley
53	Washington	Elmer Huhta
22	Editorials	
31	Food for Energy	
40	Attitude of the Baseball Coach Toward Umpires . . .	James K. Gaynor
43	A Clinic by Mail	

PUBLISHED MONTHLY except July and August by the Athletic Journal Publishing Company, 6858 Glenwood Avenue, Chicago, Illinois, Member Audit Bureau of Circulations. Request for change of address must reach us thirty days before the date of issue with which it is to take effect. Duplicate copies cannot be sent to replace those undelivered through failure to send advance notice.



SUBSCRIPTION PRICES: \$1.50 per year; \$2.00 for two years; \$2.50 for three years; 90 cents for six months; 75 cents for five months; Canada, \$1.75 per year; foreign, \$2.00 per year. Single copies, 25 cents. Copyright, 1939, The Athletic Journal Publishing Company. Entered as second-class matter, August 14, 1925, at the post office at Chicago, Illinois, under the Act of March 3, 1879.



INCREASED ENDURANCE for ATHLETES from KNOX GELATINE

Science Shows How to Build Up Energy Reserves!

Research has discovered that the immediate source of muscular energy is phosphocreatine. It has long been known that gelatine is an especially rich source of the food substances which are converted in the body to phosphocreatine.

Utilizing these facts, it has recently been demonstrated* that the feeding of as little as two ounces of gelatine daily to male subjects resulted in remarkable increases in the output of muscular energy. These findings are of particular importance to the athletic coach and trainer who desire to build up in the athlete a reserve store of muscular energy. Based upon sound scientific principles and laboratory tests, gelatine feeding should prove to be of practical value to athletes for increasing endurance.

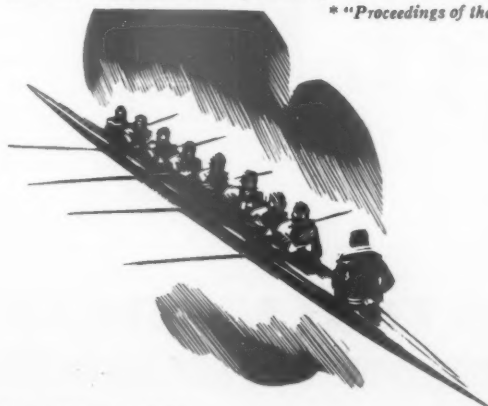
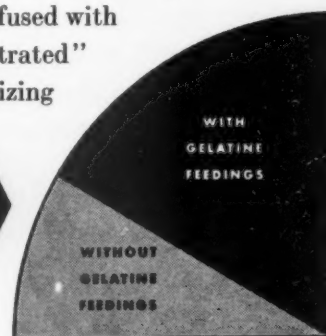
Knox Gelatine is 100% pure U. S. P. Gelatine—85% protein in an easily digestible form—contains no sugar and should not be confused with factory-flavored, sugar-laden dessert powders. "Concentrated" feedings of Knox Gelatine are easily prepared in appetizing form and are well tolerated. Send for formulas.



Light area represents a day's energy output by a test subject during the training period before gelatine feedings were started. Dark area represents a day's energy output by the same subject after gelatine feedings. In both cases the subject worked to the point of exhaustion.

KNOX GELATINE (U.S.P.) TO FILL THE RESERVOIR OF MUSCULAR ENERGY

* "Proceedings of the Society for Experimental Biology and Medicine," 40:157, 1939.



KNOX GELATINE LABORATORIES Dept. 494, Johnstown, New York

Please send literature on use of Knox Gelatine for increased muscular energy.

Name.....

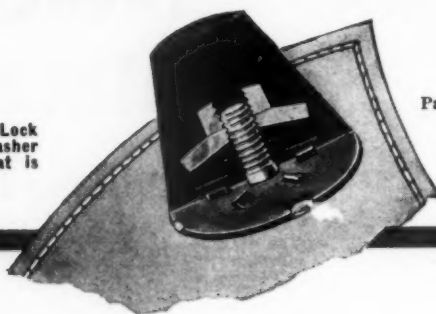
Street.....

City.....State.....

DURABILITY...

SPOT-BILT CLEAT ATTACHMENT FURTHER EMPHASIZES ADVANTAGES OF THE NEW COMPRESSO-LOCK CLEATS

Sectional view showing how Compresso-Lock cleat, rubber disc and serrated metal washer are compression locked when cleat is tightened.



Pat. Applied
For

Supporting the new Compresso-Lock cleat with the "can't-spin-off" features, is the well known and well liked Spot-Bilt cleat attachment—a cleat assembly that has proved its durability and dependability on America's leading gridirons. The cleat-bolt is locked on the insole, locked in the steel plate, and locked on the outsole—compressed under 2200 lbs. pressure—locked so tight that wetting and drying has no effect on the leather—bolt can't turn in the sole—can't back up and injure the foot.

This rugged, immovable foundation provides a perfect base for the new Compresso-Lock Cleat, featuring a cleat construction that prevents any pos-

sibility of the cleat coming off while in use. Originated by Tucker P. Smith of Ohio State University and developed to its highest point of efficiency by Spot-Bilt, this new type ratchet-teeth cleat, with ratchet-teeth rubber disc and new type serrated metal washer, are locked together by compression when tightened. And the metal insert you see surrounding the cleat-post in the sectional view shown above, keeps the cleat from bulging—all in all a combination of cleat and cleat attachment that not only meets every requirement of the rules committee, but also eliminates cleat problems for coaches who use Spot-Bilt shoes.

WITCHELL-SHEILL CO., 1635 AUGUSTA BLVD., CHICAGO

Since 1898—Athletic Shoe Specialists



AMERICA'S FINEST

FOOTBALL SHOES



Beradina Forced Out at Second.

Baseball Questions Answered at a Recent Clinic

By John H. Kobs
Baseball Coach, Michigan State

FOR a number of years it has been my privilege to hold baseball clinics for high school coaches, players and sandlot teams in the State of Michigan. For the last two years, clinics for high school coaches and players have been held at Michigan State College with the help and co-operation of Mr. Lew Fonseca of the American League. Many questions and problems have been presented to us relative to high school and amateur baseball and it will be my endeavor to set down a few of the problems encountered by the coaches attending these clinics.

I might add that the method used in handling our last clinic was to have players demonstrate various methods of play, fundamentals in batting, pitching, throwing, etc., and the set-up of defensive positions. The weather handicapped us, so that we had to conduct the clinic indoors. We had previously planned to work on the baseball field using a public address system. In spite of this handicap, the indoor session proved quite satisfactory. Near the end of the clinic, a short period of time was allotted to the answering of questions not previously taken up in the clinic. As is usually the case, time did not permit us to answer all the questions.

The first question taken up was one concerning the distribution of time for a two-hour practice during the early part of the season. The practice period the day before a game will necessarily be lighter than the one that follows.

In starting out the daily workout, ten minutes warm-up practice is necessary, consisting of playing catch, pepper games and some calisthenics. During this period the coach has an opportunity to do a little individual coaching.

Batting practice should then start immediately following the warm-up period and continue for at least one hour and twenty minutes. If there are two batting cages available, it is good policy to divide the squad and practice batting, using both cages. The reserve players and extra battery candidates can use one cage while the regular or varsity team practice batting on the diamond. In connection with batting, I have often been asked as to the percentage of bunting practice. Personally I find that hitting three fair ones and bunting one is an ideal arrangement. This can, of course, be changed to suit the coach if he finds that his team needs more bunting practice.

During this one hour and twenty minutes of batting in which everyone takes his turn at batting, the coach has a chance to work his entire team in other phases of the game. His entire infield can station themselves at their positions and field ground balls hit to them by the coach or, preferably by an assistant. The infield hitter must be careful to hit grounders between pitches of the batting practice, so that no one will be hit by a batted ball.

It is here that the infield can get practice not only on fielding ground balls but also in throwing and in the execution of double plays. Occasionally, during this batting practice, the catcher can practice throwing to the different bases by calling to an infielder to cover his base.

During this practice, the outfielders in their positions can be practicing the catching of fly balls (hit by a player or

Everything and Anything In Baseball

THE questions included later in this article were submitted by coaches from many states. The replies printed were furnished by Mr. Lew Fonseca of the American League, by a prominent and successful high school coach and by two experienced college coaches, well versed in baseball knowledge and strategy. The technical questions were selected for this issue because school baseball is at mid-season. Questions of a general nature will be answered in the June issue. All baseball coaches are invited and urged to make use of this column. Questions to be answered in the June issue must reach our office by May fifteenth.

coach's assistant from the vicinity of home base). They should also field the fly balls hit to them by the batter. Their throwing practice can be had at this time by stationing one infielder at different bases to receive their throwing.

The remaining thirty minutes of the practice period can now be used for special defensive and offensive plays and for sliding and baserunning practice. This arrangement of a practice period assumes that the coach has exactly two hours for practice. Extra pitchers and catchers get practice by taking their turn in either pitching or catching during the batting practice. If the coach organizes this practice properly, he can then spend his time supervising play and correcting mistakes.

A second problem or question which bothers many coaches is just how and where to play their infield when the sacrifice is expected with a man on first, no one out, or with men on first and second, no one out. Of course, the team at bat may decide to hit instead of bunt but nevertheless, the team in the field must be prepared for either emergency.

Diagram 1 shows the positions of the different infielders with brief explanatory notes. In Diagram 2, the set-up is somewhat different and emphasis must be placed on the fact that the pitcher should hold the runner close to second base so as to increase the possibilities of a force-out at third base. In either case, the pitcher should throw real fast balls to the batter, keeping the ball around the batter's letters.

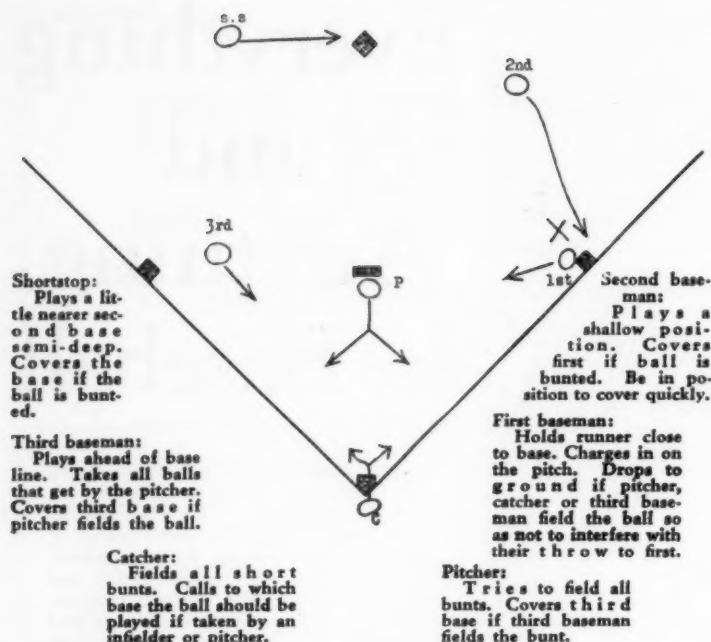


Diagram 1 shows the defensive positions of the infield when expecting a sacrifice. *Runner on First. No One Out.* Circles are defensive players. Crosses designate baserunner and batter.

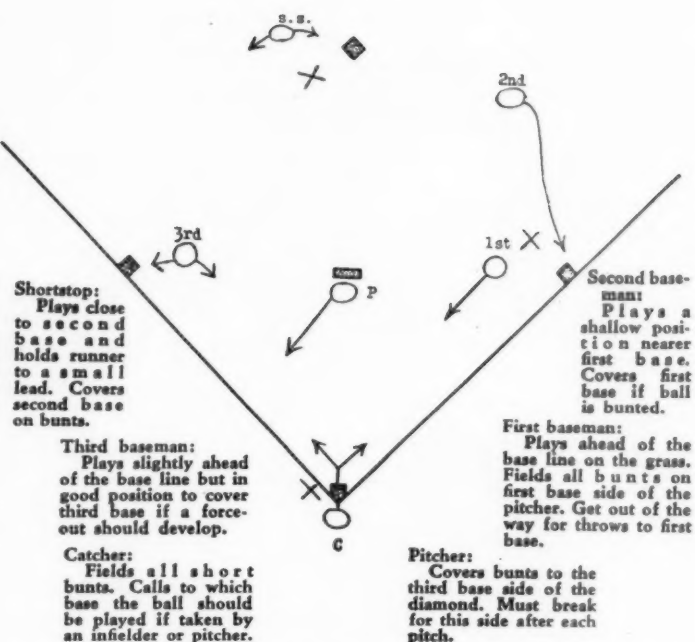


Diagram 2 shows the defensive positions of the infield when expecting the sacrifice. *Runners on First and Second. No One Out.* Circles are defensive plays. Crosses designate runners and batters.

Pitching problems were numerous but the most generally asked questions on this subject concerned: early training period, proper stance with men on bases, how to turn to throw to second base, and proper method of delivery. We shall endeavor to take them up in the order mentioned.

Early training period:

If it is possible for the pitchers to start training during the winter indoors, it is advisable to have them start working easily with various exercises and calisthenics for at least a week before they handle the ball. A certain amount of running should also be a daily diet. Playing catch with a catcher should start shortly thereafter. The boys should be careful that they warm up slowly and they should be dressed warmly. At least a week of straight ball throwing should be done before curve balls are attempted. The pitcher should at all times strive for control by trying to hit the catcher's glove held in various positions over the plate. If a batting cage or net is available, game conditions can be had when batting practice is held. Further game conditions can be had if the balls and strikes that the pitcher throws to the batters are tabulated. In this manner, the coach knows the percentage of balls and strikes that the pitcher throws for both curves and fast balls. The length of daily workouts must be determined for each individual, as some pitchers can stand a great deal more work than others. As a rule, pitching should stop the instant that a pitcher's arm begins to tire and he should never throw after it becomes sore. Rest, together with heat and massage are the only cures for sore arms.

Proper stance with men on bases. Here the stance should be as follows: the back

foot should be in contact with the pitching rubber and the front foot should be ahead of the rubber just far enough so that the pitcher feels comfortable. After his stretch, his hands must come to rest in front of him at either the chest or waist. With a man on first only, or with men on first and third, he should open up his stance a little so that the toes point more toward the batter. This position helps him see the runner on first a little better, as he looks out of the corner of his eyes. With men on first and second, he should close his stance by having his toes pointing more to the third base line. This position helps him watch the runner on second base better. The runner on first can now be disregarded.

How to throw to second base. There have been many arguments pro and con concerning the proper way to turn in throwing to this base. I feel that the most natural way for the pitcher, whether it be to the right or to the left is the best way, providing he does not violate any fundamentals or rules. If a right-handed pitcher turns to his right in making this throw, he should be sure to throw underhanded as this helps him keep the ball low. The proper spot to throw is the corner nearest third base and about a foot off the ground.

Proper method of delivery. In pitching with a wind-up, a pitcher should take a position (if he is a right-handed pitcher) with his right foot on the pitching rubber and with his left toe touching the rear ridge of the rubber. He should now start his motion, making sure that he is relaxed by swinging his arms up to the neighborhood of his head. As his pitching arm swings back to a position behind his rear leg, the left foot is now out in front. He

should conceal the ball in the glove hand as long as possible. Upon transferring the weight to the rear foot, he executes a turn or pivot by lifting his front leg and turning his hip to the batter. He should be sure to keep his wrist loose and flexible. From this position the front foot comes forward into stride. Just as the toe touches the ground and points to the batter, the arm starts its upward and forward motion. The action should be like a spring uncoiling and the weight then comes forward on the left foot. At the instant the ball comes forward and is about to leave the hand, the wrist goes into action and fairly snaps, giving the fast ball a hop or jump.

Curve ball throwing uses primarily the same motion except that the ball is released over the index finger with a rotating snap of the wrist.

A great many questions were asked at this clinic regarding batting fundamentals. As we do not have space to provide for them at this writing, I am sure that the readers can find their answers to most of these questions in previous editions of the Athletic Journal.

Breaking Up the Delayed Double Steal

By James Lympers

High School, Versailles, Ohio.

NOTHING in baseball is more coordinated than the double steal with a man on third and one on first. The success of the play depends on split vision, intelligent running, and on an understanding of how to run and when, and when to stop. Knowing when to stop,

(Continued on page 36)

How Champions Train

Training for the Broad Jump

By Harry Trotter
Track Coach, University of California at Los Angeles

BILL LACEFIELD came to the University with a record of 23 feet 7 inches made in high school. We studied his form and found that he had an irregular run, that he ducked at the take-off and that his balance was not good. We started him at work on the high hurdles, to get him up higher and to get him to improve his stride. He still does not get the height that he should to tie in with his leg extension from the knee down.

In mid-season when he has had compe-

tition the preceding Saturday, we plan his work as follows:

Monday—Hurdle work. A sprint for the board several times to check his step. Then several jumps (I call them dummy jumps) from about a 50-foot run for height and general form-work with especial emphasis on what looked poorest in his form the preceding Saturday. Finish with a stiff 440 yards.

Tuesday—Same work as Wednesday with more hurdling perhaps. Finish with two 220 yards.

Wednesday—More time on the jump. About six jumps for distance with a check between each jump on the faults—low arms, height, leg extension and pivot landing. Finish off with some hurdling, a 330-yard or two 150-yard dashes.

Thursday—Step-checking, a few dummy jumps and a few flights of five hurdles. Finish with an easy jog.

Friday—Complete rest.

Bill made no great improvement in his jumping until he could lift off the board. He runs about 124 feet with increasing speed except a relaxed stride at the board. His stride became more even as a result of his hurdle work. We changed his run in the air to a half-run idea which developed into a chair position. We got him to reach as far forward from the knees as possible with a pivot to the right landing. This is the ability to place the extended legs slightly off center, thus allowing the momentum of the jump to throw the body to the side, thereby preventing that fall-back habit. Bill is learning to help this along with an arm-cut which, as the pictures show, is still faulty.

Bill is a consistently hard worker and is making every effort to overcome the faults in his form.

Illustration 1 shows a good take-off and proper body-balance.

Illustration 2 shows a good head and body position.

Illustration 3 shows the half-run in the air. The right arm should be coming up higher to aid the balance and knee lift of the left leg, as is shown in Illustration 4.

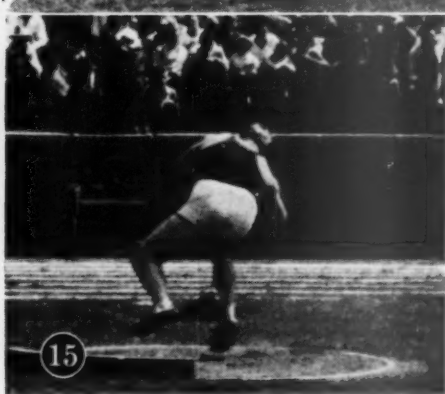
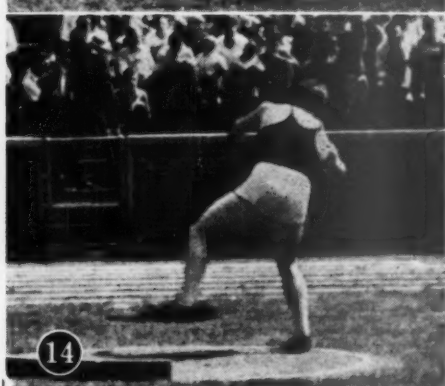
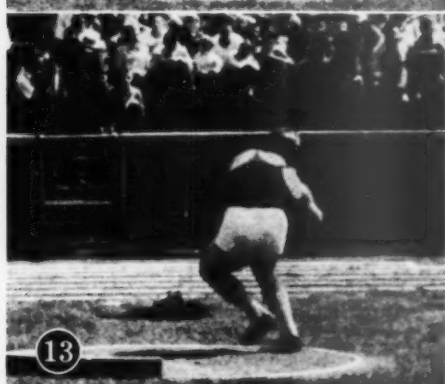
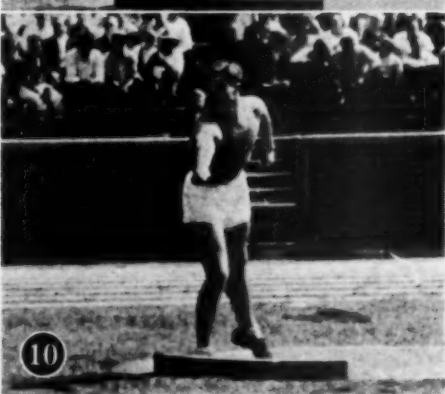
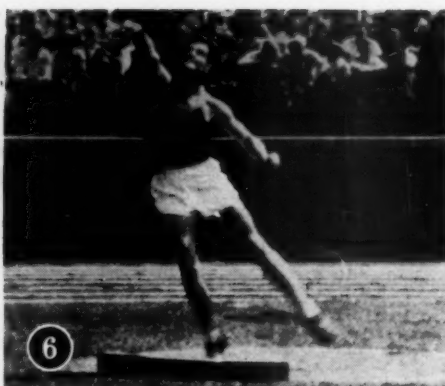
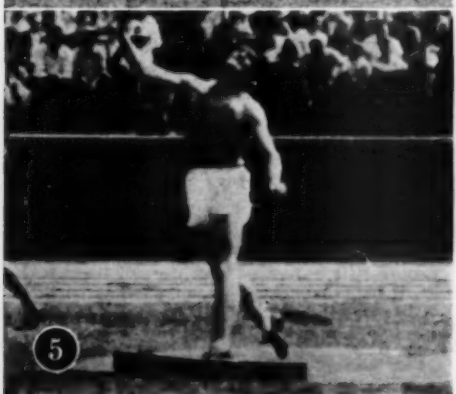
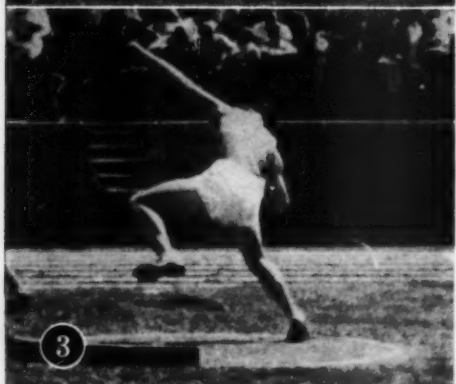
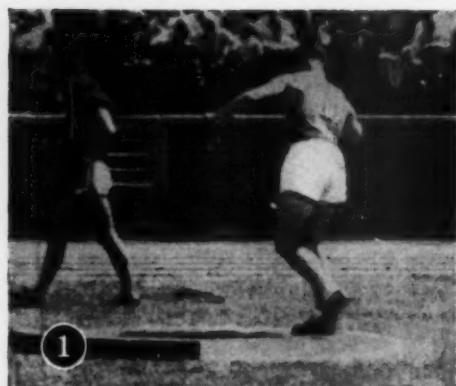
Illustration 5—Good position of the head and every effort being expended to get the legs up.

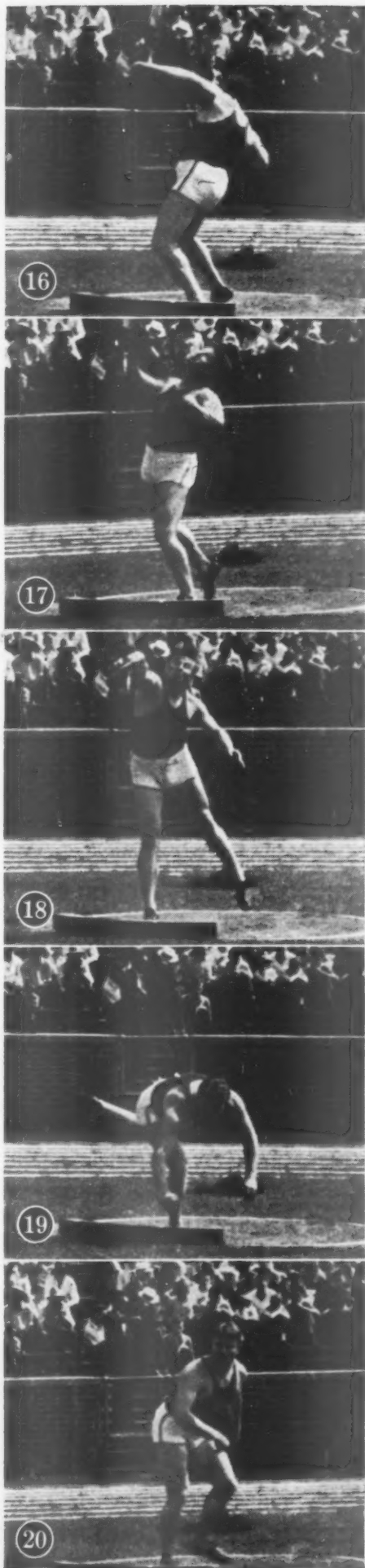
Illustration 6—The legs too spread due to lack of height. Lacefield seems to be trying to hurry his legs too fast to get off a good jump. His arm, trunk and general carriage are good.

Illustration 7—Contrary to the general opinion, the extended legs do not have to be closed. The apparent head-drop is a reaction necessary to pushing forward in landing. It helps in the pivot.

Illustration 8—The left arm is too far out to aid in his pivot.







Training for the Shot Put

By Ward H. Haylett

Track Coach, Kansas State

THE most remarkable thing about Hackney's shot putting in 1938 was the rapidity with which he improved. During his freshman year (1936-37) he played football in the fall, wrestled during the winter, and then was out for spring football. After this was over he worked out with the shot a few times, but did not do anything of a startling nature.

In his sophomore year (1937-38) he played fullback on the football team, winning all-Conference honors on some selections and he won the Conference heavy weight wrestling championship. On April

Illustrations 1-20. Shotputters at the 1938 N.C.A.A. Meet

Illustrations 21-30. Recent pictures of Elmer Hackney

Illustration 3—The long hop across the ring cuts down the room remaining for the putting stance, shown in Illustration 4.

Illustration 5—The put was made a trifle late—the full force of the right leg was not brought into the effort.

Compare the follow-through in this series with the follow-through of Hackney. (Illustration 28.) The arm should follow the flight of the shot.

Illustration 13 shows a fine "gather" behind the shot, which is maintained through the hop across the ring.

Illustration 16 shows a shorter, more closed stance than Hackney's (Illustration 26) as referred to in Mr. Haylett's write-up.

Illustration 17—The put has been made off the right foot with the right hip in the best position to make use of the power of the right leg. Contrast this with Illustration 5, in which the put has been made a trifle too late after the weight has shifted partially to the left leg, neutralizing some of the power possibilities of the right leg.

Illustration 18 gives promise of a good follow-through, but the putter gives indication of having dropped his shoulder in Illustration 19 and apparently did not get the full value of his arm drive.

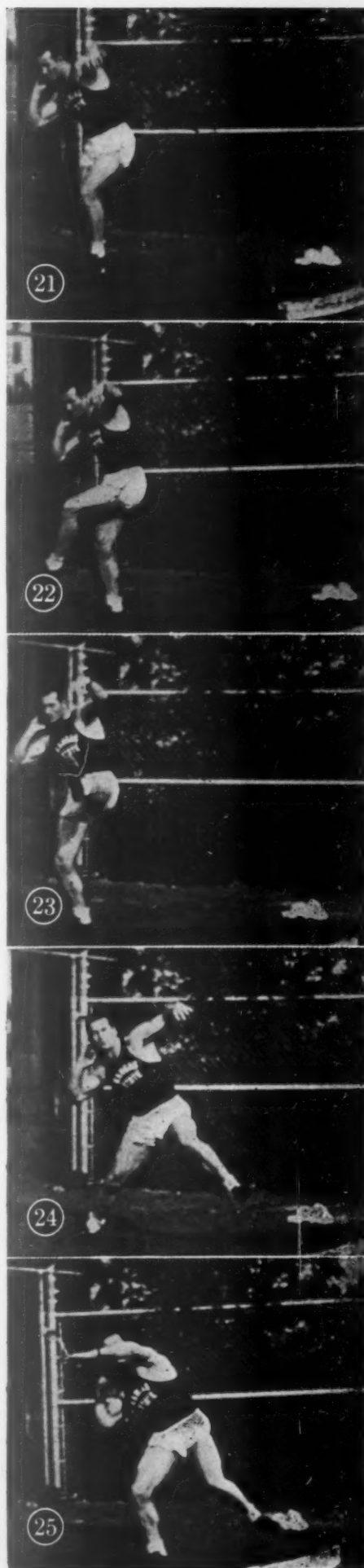
Illustration 21—Note that the shot is high, well off of the shoulder.

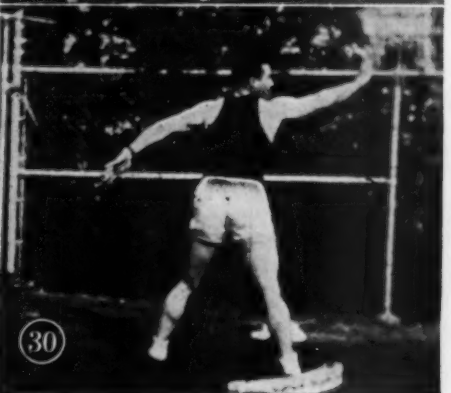
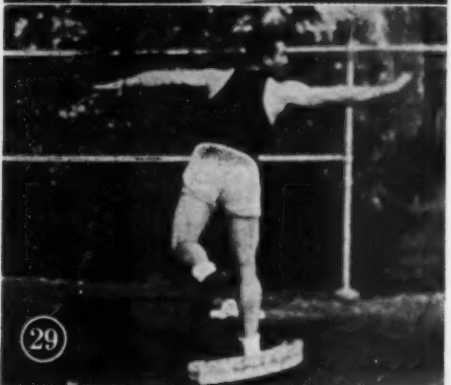
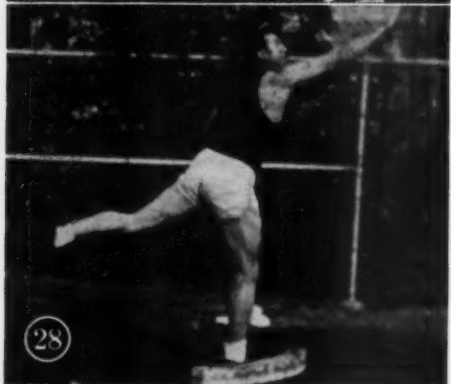
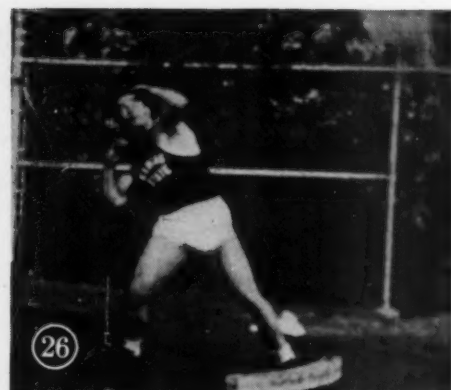
Illustration 22—Start of the hop.

Illustration 23—Note Hackney's relaxed position as he begins the hop.

Illustration 24 shows the left leg swung forward to give body momentum across the ring, the relaxed left arm and the right arm cocked behind the shot.

Illustration 25—In the finish of the hop, note the left arm across the body to help with the twist.





9th, he reported for track and one week later had improved from about 44 feet to 49 feet 4¾ inches. This was the distance of his winning put in his first varsity track competition on April 16. One week later he won the event at the Kansas Relays with a put of 50 feet 4 inches, and at Drake the following week did 50 feet 5½ inches. His next improvement was in a dual at Oklahoma where he did 51 feet 5½ inches. In May, just seven weeks after reporting for practice, he broke the Conference record with a mark of 51 feet 10 inches. His next victory was in the National Collegiate Meet at Minneapolis where he practically duplicated this mark.

This year he competed indoors for the first time with the following results: Drake dual, 50 feet 11 inches; Illinois relays, 51 feet 3¾ inches; Nebraska dual, 51 feet 6 inches; Conference, 50 feet 7¾ inches (the best put during 1939 indoor season in America).

His first outdoor appearance this year was at the Texas Relays where he won the event with a mark of 52 feet 3¼ inches. In every case except one, these marks constituted new meet records, and in the case of the Drake, Illinois, Nebraska, and Armour Tech Meets, the marks were the best ever made in these field houses. While turning in this fine string of performances he also found time to help his team win the Conference wrestling championship.

Hackney is not big in comparison with most shot putters who have done 50 feet or better. He weighs 207 pounds and is 6 feet 1 inch tall. His greatest assets are fine muscle tone and co-ordination plus a lot of speed. He is a regular contestant in the try-outs for a place in the sprint. As yet, he has not made the team in this event but he is never far back.

This speed sometimes causes him trouble in his form in the shot put, as he has a tendency to start too fast and often carries his first hop or glide too far across the circle, thus causing a poor position for the remaining action.

Naturally, he does not use the delayed reverse. However, his form is sound, in that the shot is delivered with both feet on the ground. The follow-through comes a little faster than with a great many athletes and this is a very decided asset. In spite of a speedy travel across the circle and a vigorous follow-through, Hackney seldom fouls in competition.

(Continued on page 55)

Illustration 26—The left foot a little too far to the left, causing a too open stance.

Illustration 27—Both feet are firmly planted on the ground as the right arm begins the drive.

In Illustrations 28, 29 and 30, the reverse after the put—there is a tendency to tenseness in the follow through in this particular put. Although what happens after the shot leaves the hand has no effect upon the put, it serves to indicate a fault that may have existed during the action before the put.





Discus Throwers, 1938 N.C.A.A. Meet
Illustrations 1-8. Pete Zeger, Stanford
Illustrations 9-16. John Herrick,
Harvard

Illustrations 1-2. Note the relaxed left arm.

Illustration 3 shows a good twist of the body. Note that the discus is kept at the trail right up to the moment of delivery.

Illustration 8 shows a fine balance.

Illustration 11 shows the discus at right angles to the ground as it is swung back and forth, as the turn starts.

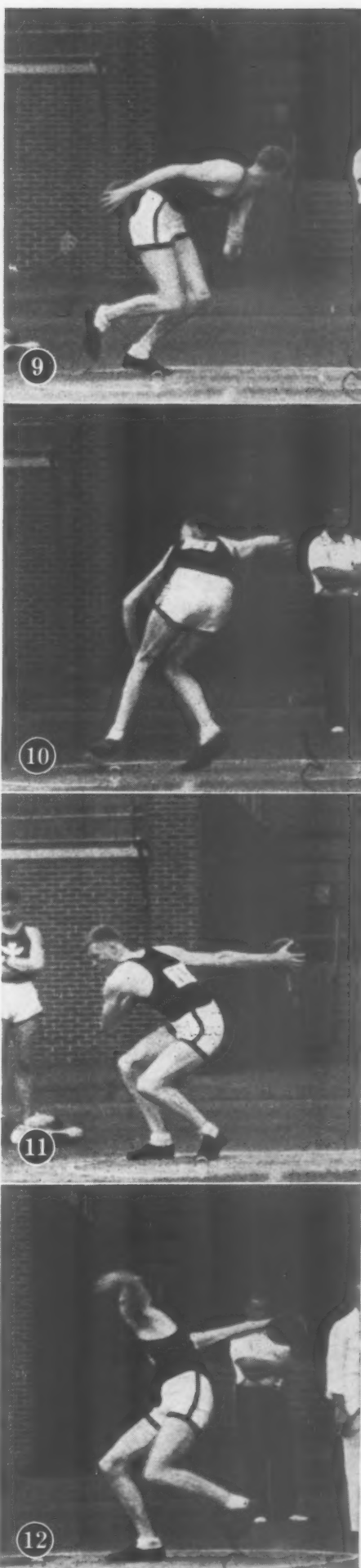
Illustration 12 indicates that the discus trails a little too far behind the right shoulder.

Illustration 13 shows a good pull on the missile.

In Illustration 14, there is a slight falling away to the left from the throw. This is a fault that interferes with the athlete getting full force into the throw. This falling away may have been caused by the thrower not getting the right hip sufficiently forward before exerting the final pull.

Illustration 15—Note the right arm breaking across the body in an approved finish.

Illustration 16—An excellent example of how a thrower should look at the finish.



Night Baseball

By E. B. Karns
Illuminating Engineer

THE second in this series of articles on athletic field lighting deals with the fundamental aspects of baseball field lighting.

Baseball has been the national pastime of this country for a hundred years and is more popular today than ever before. There have been many changes in the playing field, equipment, and rules during that period. The vacant lot, with rocks for bases, has given way to the mound infield with sod as well cared for as a prized lawn. "Standing room" has yielded to stadiums seating 60,000 to 80,000 persons.

All of this, of course, came from the game's popularity, but probably the most noticeable advancement came with night lighting of baseball fields. The day game has become a night game with renewed popularity, especially noted in the minor leagues and high school and amateur fields.

Minor leagues soon recognized the value of night baseball. The playing of night games enabled them to double and triple their crowds. Many fans, unable to attend day games, found it convenient to attend night games. Major leagues, although hesitant at first, have appreciated the results of night ball in the minor leagues and Cincinnati, Brooklyn and Philadelphia in the National, and Philadelphia in the American League have followed with lighted fields. Cleveland, also of the American League, is contemplating night ball in '39.

Philadelphia is credited with owning the brightest lighted baseball field in the world, having installed 780-1500-watt floodlights.

The above is given to indicate the popularity of night baseball and the extent to which the major and minor leagues have gone to provide night baseball for the public.

High schools, colleges and amateur, as well as semi-professional fields, have also been successfully lighted with inexpensive installations. Brookside Stadium in Cleveland, an amateur ball field, was floodlighted with 100 open type floodlights, mounted on wood poles, at a total cost of approximately \$4,800.00. The opening game drew between 80,000 and 100,000 fans. Three night games a week were played and for the season drew an estimated crowd of 800,000 to 1,000,000 persons. Cleveland sports writers said:

"'Class A' amateur baseball, tottering on the brink of despair for several years because of a lack of interest, today has been given new life and a prominent position among Cleveland's most popular sports."

"It is a new era, with baseball taking the place of the corner tavern; the national pastime indulgently patting the hands of workers and leading them to the open."

Method of Lighting

To present methods of baseball field lighting, this article, like the previous articles on athletic field lighting, must be general and deal with the fundamentals of this type of lighting. Careful study has been made over the past 15 years of this, the most acute of all athletic field lighting—baseball fields. Those making the study have drawn certain conclusions and have established definite practices to be followed.

Consideration of baseball field lighting involves careful scrutiny of individual factors which join to accomplish the desired results. These factors are:—

1—METHOD OF LIGHTING

- Location of Equipment
- Mounting Height
- Type of Mounting Structure
- Operating Voltage
- Area to Be Floodlighted

2—THE FLOODLIGHT

- Construction
- Photometric Data
- Maintenance
- General

3—CLASS OF LIGHTING

- Resultant Illumination

1—METHOD OF LIGHTING

- Location of Equipment

It has been found that for best results for baseball field lighting the floodlights

should be located in groups or banks at advantageous points rather than a continuous row encircling the playing area. Best practice requires eight groups of floodlights located approximately as indicated on the plan in Fig. 1.

The plot plan layout shown in Fig. 1 is typical of a field that might be used for high school, small college or semi-pro play. It consists of 8 floodlight locations with 10 to 15 floodlights located at Positions 1, 2, 5, 6, 7, 8 and 20 to 30 units located at Positions 3 and 4.

b. Mounting Height

A minimum mounting height of 60 ft. should be provided. For best results, the mounting height should be approximately 70 ft.

c. Type of Mounting Structure

Structural steel towers usually offer a more desirable mounting structure for the floodlights. These should be of the 4-legged type set on a concrete foundation. A suitable basket mounting arrangement at the top should be provided for the floodlights.

Steel towers of this type in some cases may prove too expensive and less expensive wood poles may be used. When wood poles are used, single pole may be used at Locations 1, 2, 5, 6, 7, 8 and two pole Type H construction at Locations 3 and 4. When wood poles and wood cross arms are used, it is good practice to double arm the floodlight arms. This provides a more rigid mounting for the units. An additional arm below the lowest floodlight arm should be provided for a service arm on which to stand when servicing the floodlights.

d. Operating Voltage

The 1500-watt PS-52 clear bulb general service Mazda lamp is the most economical lamp for athletic field lighting. It has been found economical in baseball lighting to operate the lamps at 10 per cent over-voltage, or 105-volt lamps on 115-volt circuits. This results in approximately 35 per cent increase in lumen output while the wattage increases only 16 per cent. The rated life of the lamp is reduced to approximately 300 hours.

e. Area to Be Floodlighted

In discussing and calculating baseball field lighting the field is divided into two areas—infield and outfield. The infield area consists of 22,500 sq. ft., which is an area 150 ft. square or 30 ft. beyond the base line on all sides. The outfield is the area falling within boundaries of a line 30 ft. beyond the foul line and extending to the limits of the outfield, minus the infield area.

(Continued on page 32)

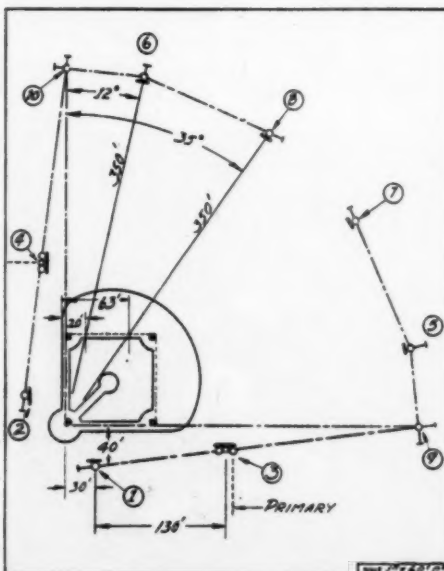


Fig. 1. Layout for Baseball Field.

Suggestions for Increasing Interest in Track and Field Athletics

By James Pelley

Grant High School, Portland, Oregon

school, city, state, or national record. Three of the original motivating devices which I have developed for recording and illustrating achievement will here be explained.

The Permanent Record

For each athlete who registers for track, a permanent record form is provided. The form has the usual data regarding address, telephone, age, term, and registration room. It has space for recording, during the four years, information regarding such matters as scholarship, weight and height, attendance at practices, physical capacity, and achievement in track. The physical capacity is determined by the tests designed by Dr. Frederick Rand Rogers. The most important feature of the form is the record of performances in the various events. The results of every time-trial or competition in any event are recorded on the back of the record form. The value of this history of achievement to either the coach or the athlete may readily be seen. It may be passed along with the boy to his college coach. The detail of recording the information is given to a statistically minded student manager. A little form for submitting information to be recorded is made available to the athletes whose responsibility it is to submit the records of their accomplishments.

Who's Who Board

A device which we have used with great success is what is called "The Who's Who Board" illustrated here. It provides on

TRACK RECORDS

All the world loves a champion

EVENTS	GRANT	CITY	STATE	NATIONAL
100 Yard Dash	10 flat M. G. Smith City 1930	10 flat M. G. Smith City 1930	9.99 L. H. Smith Oreg. State 1931	9.4s. Jesse Owens E. Tech. Cleveland, O. 1935
220 Yard Dash	22.9 D. G. Smith State 1931	22.9 D. G. Smith City 1931	21.8 D. G. Smith Oreg. State 1931	21.4s. B. G. Smith Oreg. State 1931
440 Yard Dash	52.5/10 D. G. Smith State 1931	52.5 D. G. Smith City 1931	52 D. G. Smith Oreg. State 1931	48.2s. H. G. Smith Oreg. State 1931
880 Yard Dash	2:02.5/10 D. G. Smith State 1931	1:59.4/5 D. G. Smith City 1931	1:58 D. G. Smith Oreg. State 1931	1m. 54.4s. D. G. Smith Oreg. State 1931
One Mile Run	4:37 D. G. Smith State 1931	4:38 D. G. Smith City 1931	4:29 D. G. Smith Oreg. State 1931	4m. 22.3s. D. G. Smith Oreg. State 1931
120 Yd Hurdles	161 D. G. Smith City 1931	156 D. G. Smith City 1931	15.7 D. G. Smith Oreg. State 1931	14.7s. D. G. Smith Oreg. State 1931
220 Yd Hurdles	23.6 D. G. Smith City 1931	23.6 D. G. Smith City 1931	23 D. G. Smith Oreg. State 1931	23.4s. D. G. Smith Oreg. State 1931
Running High Jump	5' 11" D. G. Smith City 1931	5' 11 1/2" D. G. Smith City 1931	6' 1 1/2" D. G. Smith Oreg. State 1931	6' 4 1/2" D. G. Smith Oreg. State 1931
Running Broad Jump	21' 0" D. G. Smith City 1931	22 feet D. G. Smith City 1931	22' 6 1/2" D. G. Smith Oreg. State 1931	24' 11 1/2" D. G. Smith Oreg. State 1931
Pole Vault	11' 10 3/4" D. G. Smith City 1931	11' 11" D. G. Smith City 1931	12' 1/2" D. G. Smith Oreg. State 1931	15' 6 1/2" D. G. Smith Oreg. State 1931
12 Lb Shot Put	31' 6" D. G. Smith City 1931	31' 6" D. G. Smith City 1931	32' 2 1/2" D. G. Smith Oreg. State 1931	38' 10" D. G. Smith Oreg. State 1931
Discus Throw	139' D. G. Smith City 1931	139' D. G. Smith City 1931	151 1/2' D. G. Smith Oreg. State 1931	191' 6" D. G. Smith Oreg. State 1931
Javelin Throw	162' 5" D. G. Smith City 1931	154' 3/8" D. G. Smith City 1931	201' 1/2" D. G. Smith Oreg. State 1931	220' 6" D. G. Smith Oreg. State 1931
Relay-880 Yds.	1:33 flat D. G. Smith City 1931	1:33 D. G. Smith City 1931	1:35 D. G. Smith Oreg. State 1931	1:28.2 D. G. Smith Oreg. State 1931

A Record Display Board

A LARGE part of the track coaches' job lies in the realm of motivating the sport. Any coach or teacher appreciates more or less fully the implication of the doctrine of interest. Track athletics are not entirely self-motivating, as there is not the usual game-element present in the practice session to the extent that it is found in other sports. At least, it is certain that interest follows effort and it is largely up to the coach to motivate the necessary initial effort until self-sustaining interest catches up. A good track man who is through the preliminary season, who is achieving, and who is receiving the thrill of accomplishment will carry along pretty well under his own steam.

It is a sound pedagogical principle that one of the greatest factors in motivation

generally is to cause the learner to see his progress graphically as he proceeds toward a set goal. The more definitely this progress is measured and the more clearly it is demonstrated, the greater the impetus to the learner. Track coaches should seize upon the principle and apply it to this sport which lends itself, as no other does, to definite measurement of achievement and growth. This has been the secret of our ability to keep interest in the large squad throughout a season, even among boys who never had the slightest chance to earn a point in interschool competition. No matter how slow or how fast a boy is, he always has a goal ahead and sees his measured progress toward that goal. He tries to better his previous record; he tries to beat his team mates; or he tries to better an established



The 1939 Basketball Championships

ALABAMA

Dewey Cox

Chilton County High School

Clanton

ALABAMA is divided into eight districts. The two winning teams of each district go to the state tournament sponsored by the University of Alabama at Tuscaloosa. The teams from the same district are placed in separate brackets and the teams draw for their opponents. The tournament is run off in two days.

I start practice the first of December and let the experience of my players determine the date on which I should schedule my first game. With an inexperienced team, I like three weeks of practice on fundamentals. The boys are more enthusiastic at that time and willing to take fundamentals seriously. I vary the length of practice according to the schedule but we average about one hour and a half each day.

For the past two years I have had a small team and have had to depend on speed, with accuracy in passing and shooting always an issue. According to the newspapers I have the smallest team that ever won the state championship, but the boys on my team have all had at least three years' experience. I think that it was this experience that brought us victoriously through four games with only a margin of eleven points in the state tournament.

We use the man-to-man defense, checking the man over the floor. This helps break up set plays and with fast men we can score many points before the opponent's defense gets formed. I teach my boys to switch men when they get blocked out by opponents. The most successful way I have found to do this is to have two boys try to score on two others. I can get in some offensive work such as faking and blocking at the same time.

At the first of the season we used set plays but discarded them because they seemed to be slowing us up. However, we used variations of them and I think that they paid us in the end for the time spent on them in the early season. I found one play to be particularly good for getting the ball under the basket on zone defenses. In the play shown in Diagram 1, we had X4 pass to X2, breaking from the corner to the center of the circle. X2 made a backhand pass to X3 who cut across the lane for a shot. Against zone

defenses we did a lot of long shooting, hoping to draw the defense out. I stress shooting all the time as, after all, that is what wins games.

The state championship had never been won before by a team from the Southern half of our state. Both first and second places went to the Southern half this time. I credit this improvement to more and better gymnasiums and to increased interest in basketball. The teams in the tournament this time were better coached and we saw various types of offenses and defenses. McGill Institute of Mobile, the second-place winner, used a rather unorthodox system which proved to be hard to solve. Employing a combination man-to-man and zone defense and a fast-breaking offense, they used numerous long passes which seemed to be timed to perfection. They also impressed the fans with their ability to control the ball off the backboards, although none of their players were rangy.

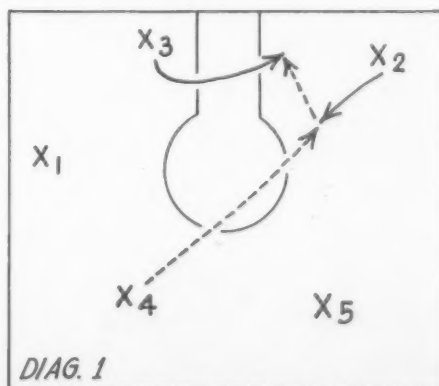
Ramsay High School of Birmingham had the most smoothly performing team in the tournament and had the ability to score. Although the Ramsay boys were much taller than my boys, they lacked the aggressiveness in controlling the ball. They made the mistake of letting us shoot in the first of the game and, once we had a lead, we kept it.

ARIZONA

Frank Brickey

Union High School, Duncan

SIXTEEN evenly matched teams met in Tucson for the annual state basketball tournament. Any one of the teams was a potential championship team as demonstrated by the closeness of the scores for all contests. The attendance was an all-time high, and the gate receipts showed a larger profit than at any previous tournament.



The final game found Duncan playing Benson for the championship. Duncan won by a 25-17 score. This was the second consecutive year for Duncan to win and the first time a team had repeated in winning the tournament since Mesa won in the years 1923 and 1926.

In reaching the finals, Benson defeated teams from Safford, Phoenix and Ajo. Duncan defeated Gilbert, Nogales, Tucson and finally Benson.

In the consolation bracket, Globe won. Globe had an undefeated record before going to the tournament. In the first round Globe lost to Phoenix, then went ahead to win the remaining consolation games.

Most of the teams at the tournament relied upon a fast break as an offensive threat. The outstanding team in this respect was Tucson which set a terrific pace with their fast break. Often Tucson was able to place three men down on one guard.

The outstanding defensive team was Duncan. No team was able to score more than a total of nineteen points against Duncan. The defense employed was a tight shifting zone, with three men in the front line and two in the back. For tournament play, Duncan used a tighter defense than normally, allowing long shots to be attempted but preventing most of the close shots. The defense used by tournament teams was rather evenly divided between man-for-man and zone. Seven teams used the zone while the remaining nine teams used the man-for-man.

Benson, the runner-up, used a man-for-man over the court, occasionally tying up the ball before it was brought into the front court. It was difficult to screen the Benson team. Offensively, Benson used screen plays as a basic idea, but were quite effective with a fast break.

Duncan was fortunate in having two boys from last year's championship team, O'Dell and Hext playing regularly in 1938. In addition to these boys, Arnett and Lunt had seen considerable action the previous year. This is mentioned because tournament play is just a little different from regular season play and the experience gained in previous tournaments is often the deciding factor in winning.

Offensively, Duncan played a deliberate style of ball which I find to be best suited for tournament play. The score and time remaining governed this, however, and Duncan used a fast break occasionally to keep the defense in their own back court. Tip-off plays were attempted on every held ball, regardless of the position on the

court. This won the Tucson game for Duncan.

Plays used to good advantage were as follows: Diagram 2 shows a play used against the zone-type defense. The guards X1 and X2 played with the ball until the defense covered them. A quick pass was made to X3 who took a wheel-in shot or passed to X4 or X5 for a set shot. Diagram 3 shows a play used against the man-to-man defense. X1, X2 and X3 played with the ball until the guards on X4 and X5 shifted to the inside of their men. A quick pass was then made to X4 who drove for the basket. X5 screened for X4 by breaking diagonally across the lane.

COLORADO

Don DesCombes

Manual Training High School

Denver

AFTER reaching the finals or semi-finals five times in the last six years, Manual Training High School of Denver came through to win the Class A division of the Colorado State High School basketball championships. Starting well in the league season, Manual went into a slump but managed to win the play-off for second place in the league and the right to enter the state play-off. The boys seemed to find themselves again in the tournament, playing better with each game. Sterling was defeated in an over-time game, 26 to 25, then Fort Collins was eliminated 30 to 24 in the semi-finals and in the finals the peak was reached when Colorado Springs was defeated 30 to 11.

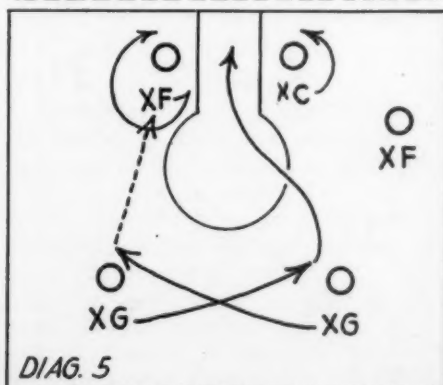
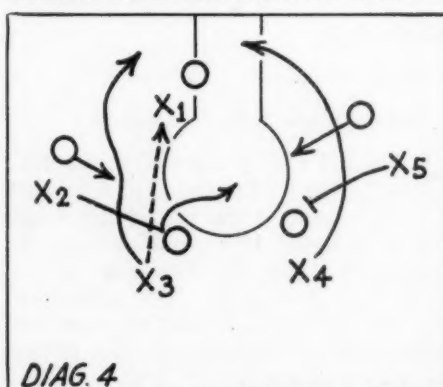
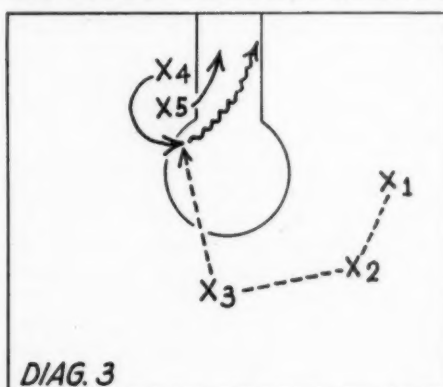
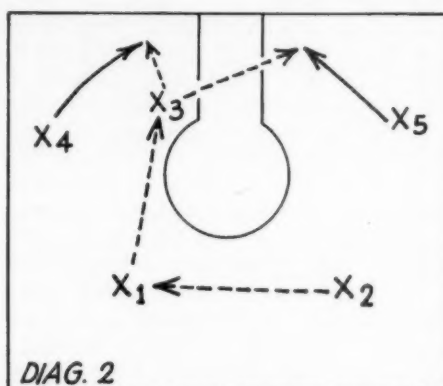
The teams in the tournament were about equally divided in the use of the zone and man-for-man defenses. However, the four semi-final teams all used zone defenses. A few teams used a pressing defense and a fast break but most teams were content to work the ball down slowly for a possible score after setting up in the offensive formation.

Defensively, Manual Training High used a trading zone-type of play, that is, a trading of men on defense as they passed through certain zones. This type of defense proved very successful against screening and was very valuable to us in keeping a guard, six feet, three inches tall, weighing 220 pounds, back in a position to recover rebounds. It was also effective in keeping a fast forward out in front for a possible fast break.

Offensively, we brought the ball down the court rather slowly, using set plays. At times for a change of pace, we would fast-break. We nearly always made a fast break when the ball was stolen or intercepted in the front line of defense. Most of our set style of attack was of a single-post method. We placed a center, six feet, six inches tall, weighing 230 pounds, on the post, either side of the free-throw lane.

The other four players handled the ball out in front in a weaving type of play. Any player would pass into the post when the opportunity presented itself. We were able to score consistently on the play shown in Diagram 4.

The ball was passed into X1 by any of the four players that could get it to him. Immediately X2 broke across in front of X1 for a possible shot at the free-throw line. X3 drove down the side trying to



screen off his man on the moving screen X2 so that he would be open for a corner shot or a possible drive to the basket. X5 moved out on the play, screening the guard of X4, who moved around the outside to drive in under the basket. X1 fed the ball to any player open for a possible shot. If no shot occurred, X1 took a pivot shot with X3 and X4 following. As a result of the weaving on the part of the four players out in front, many natural screens occurred leaving openings for shots and cuts to the basket.

FLORIDA

Harry G. Kemmer

Mainland High School

Daytona Beach

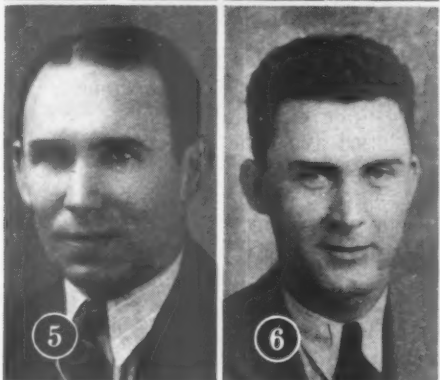
SEVERAL fine teams participated in the 1939 Florida High School basketball tournament at Miami Beach. Winners and runners-up from each of four regions in the state battled for the coveted title. Among the stronger teams present were Miami Beach, Orlando, Robert E. Lee (Jacksonville) Daytona Beach, Miami Edison, Plant (Tampa) and Pensacola.

In winning the title our boys showed that they had those inner qualities which mark a superior ball-player. They came back strong to defeat Miami Edison's Red Raiders, 35-34, after trailing, 21-13, at the half. Then in the final game we out-fought Coach Hovater's fine Orlando Tigers, one of the best high school teams that I have ever seen. This same team had defeated us twice during the regular season.

It was noticeable throughout the tournament that the fast break was used by most of the teams whenever possible. Miami Beach and Orlando were especially effective in this respect. Both man-to-man and zone defenses were employed.

The principal characteristics of our offense and defense are shown in the accompanying diagrams. We used a fast break when possible. Diagram 5 shows a set formation that we employed. We had two tall boys whom we set up along the free-throw lane as shown. These boys worked in and out and around their guards, never getting set too far in advance. The guard XG passed and screened until an opening permitted a bounce-pass in to XF, who faked a pivot shot to the inside, then wheeled and scooped a shot under his guard's arms on the outside. Many times this shot was fouled by opponents. The taller guard and center XC followed up the shot.

Diagram 6 shows a variation of the play of the preceding diagram. The guard passed in to the forward XF, who bounce-passed to the center XC. The latter faked in one direction, then wheeled or pivoted and shot in the other direction.



CHAMPIONSHIP



1. Dewey Cox—Alabama
2. Frank Brickey—Arizona
3. Don Descombes—Colorado
4. Harry G. Kemmer—Florida
5. Ollie C. Thomas—Kansas
6. Herman Hale—Kentucky
7. W. L. Mansfield—Maine
8. Claude Mikkelsen—Missouri
9. J. A. Thompson—Montana—Class A
10. A. V. Himsl—Montana—Class B
11. Ray Jenkins—Nebraska—Class C
12. N. A. Sullivan—Nebraska—Class B
13. Lee Liston—Nevada
14. Robert Pierce—New Mexico
15. Ernest Gates—North Dakota
16. Lew Hosfield—Ohio
17. Grady Skillern—Oklahoma
18. Harold Hauk—Oregon
19. Lyles Alley—S. C.—Class B
20. J. R. Cooper—S. C.—Class C
21. Syd Beane—South Dakota
22. Wilson Collins—Tennessee
23. Clarence Gernand—Texas
24. Elmer Huhta—Washington
25. Paul Dawson—West Virginia



COACHES 1939



Diagram 7 shows the defense which we used and found quite effective. XF, a tall man of exceptional ability in taking the ball off the backboard, played a zone defense in the free-throw lane. The other four men played a radiating man-to-man shifting defense, with something of the zone principle involved. That is, XC, XF, and the two men XG, played a shifting man-to-man defense on their respective sides of the floor, moving farther out if the ball was farther out, but converging back on the free-throw lane area when any thrust was made at the basket. These men kept their arms extended and their hands up to discourage long shots at the basket. We found this defense very effective in keeping opponents away from the basket, and I am convinced that it was this defense which enabled us to defeat Orlando. We had employed a more or less man-to-man defense against them in our season games and had not been able to stop them.

I felt very proud of the boys and was convinced that they deserved to win. We had no problems of training or discipline throughout the season and several of the members of the team were very good students.

IDAHO

A. Martindale

High School, Blackfoot

IDAHO is divided into Class A and B schools. Those having an enrollment of over 250 are in Class A and those under 250, in Class B. A Class B school may join Class A by a petition to the state board, if sanctioned by its district board.

There are six basketball districts in the state, each sending one team to the state tourney. The district nearest to the tourney location sends its second-place team also and the host-school enters a team, making a total of eight teams.

The play this year in the state tourney was close and of a very high caliber. Boise, defending champions, employed a fast break, as did Sugar Salem and Buhl. The other teams employed more of a deliberate style.

We used a deliberate style of offense. We broke down ahead of the defense, if we intercepted the ball in the middle of the court, but we were very careful not to throw the ball away in getting down the court. We believed that the best defense was keeping the ball away from the other team until we could get a good shot. I have kept a close record of our games this year, and in almost every game we have been in control of the ball 72 per cent of the time. We used a set offense, and we employed about three plays. Our whole offense was run from these plays. Every man on the team knew the spot in which every other man was at all times.

Our defense was a loose man-to-man.

Some coaches thought that it was a zone, but it was not. We shifted men if the guard was blocked out, but we played so loose that it was hard to screen us.

We had to check some teams out in court to keep them from shooting long shots. With most teams, however, we let them shoot the long ones and stopped the short ones.

In the final game of the state tourney, Boise and Blackfoot played one of the

closest games that I have ever seen. There was never more than a difference of two points in the score of the two teams until the beginning of the last quarter, and then we were only five points in the lead. The score was tied at the end of the regular playing time, and Blackfoot won in the extra period 25-23.

During our regular season we lost two games out of thirty.

ILLINOIS

James A. Laude

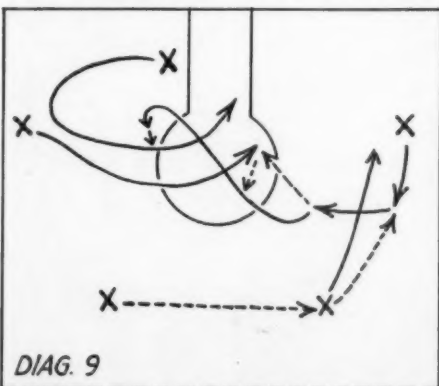
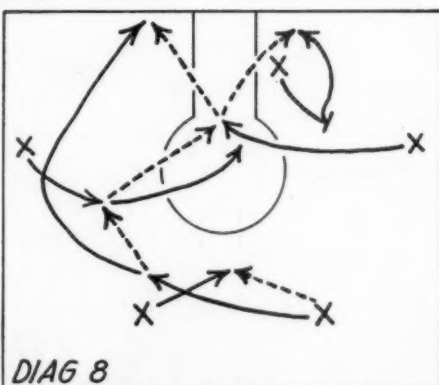
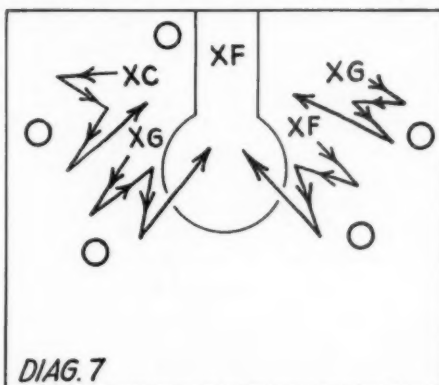
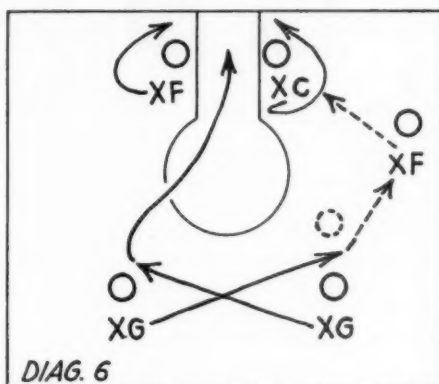
High School, Rockford

THE sixteen teams that won their way to the Illinois state finals at Champaign represented the winners of fifteen sectional tournaments and the winner of the Chicago city championship.

The fans saw more varied types of offenses and defenses this year than ever before. Defenses used were the zone, straight man-for-man, shifting man-for-man, position on the floor, retarded and spread. Offenses used were shoot and follow, screens, blocks, center feed and the fast break.

Our offense and defense were synchronized into one unit, that is, our defense was based upon our offense, and our offense was based upon our defense. We used a spread defense and tried to keep the other team hurried to the extent that our opponents never had time to relax, think or set up plays. This caused them to make bad passes, travel, break their dribble and have held balls. All the boys on our team were drilled and drilled to break from defense to offense even to the extent that they anticipated this shift sometimes long before it happened. This brought about the result for which all the boys kept trying, two on one, three on two, four on three or five on four. Every boy was a fast, accurate passer and handled the ball well. We used mostly a pass built for speed. Only the fingers and wrist snap were used to send the ball from one to the other. Our fast break started from every conceivable set-up—missed free throws, made free throws, held balls, out of bounds and interceptions.

Did we employ a slow break? Yes, four types: (1) An offense with a set-up of three men in the hole and two out in front. This offense was based upon screens out in front and natural blocks in the hole. (2) A rotary offense based upon screen blocks, keeping two men on each side of the floor and one out near the center circle. We also used this for our stalling attack. (3) We used a center feed offense, with Bob Wallin, six feet, four inches tall, weighing 195 pounds, on the free-throw line, with our guards and forwards feeding the ball to him and cutting off of him. (4) An offense which we called our regular offense, based upon natural basketball with good



ball-handling, all players moving and cutting and keeping spread out at all times.

On all out-of-bounds balls that we received in offensive territory, we had set-ups based upon the location of the spot where we got the ball out of bounds. All these plays were based on freeing a man by screens.

Our entire success was due to having a group of boys that liked to play basketball, were willing to master fundamentals and had a lot of hustle.

Diagrams 8 and 9 show two floor plays that we used with our slow break.

KANSAS

Ollie C. Thomas

High School, Winfield

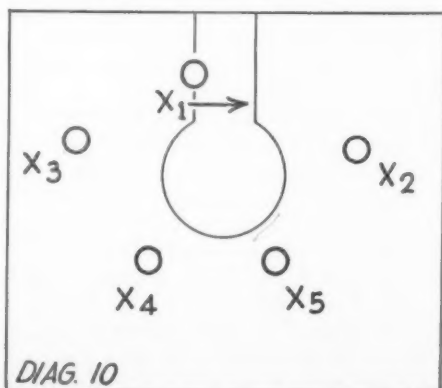
OF the sixteen teams competing in the Class A tournament at Topeka, only three used a straight zone defense. Most of the teams using a man-for-man defense employed some zone principles by doubling back or shifting with the ball on the weak side.

On offense, most of the teams did not rely on a screening type of game to win. A majority of the teams used some type of post offense, either single or double, once the defense was set. There were not many teams using set plays. Most of the teams were alert to use a fast break, if a fast-break situation arose.

Eldorado won from Arkansas City and Winfield defeated Ward to reach the finals. Winfield won the championship by defeating Eldorado 24-18.

Winfield used a zone defense, varying it according to the type of offense met. Usually it started with two out and three back. Against some teams it became a pressing zone with the front men playing near the middle line. Against other teams, it became a retreating closely knit defense. During the season, Winfield won twenty-one out of twenty-three games played, and used a man-for-man defense in part of only one game.

On offense, Winfield used a deliberate type of game, breaking fast on occasion, but usually allowing the defense to get set and then taking the formation, shown in Diagram 10 of two out and three through, with a single-post set-up.



We built our offense around Gerald Tucker, one of the better high school post-players in the country. Six feet, four inches in height and weighing 185 pounds, Gerald could feed or shoot with either or both hands.

Winfield, playing a rather conservative game, tried to keep possession of the ball as much as possible and was able to gain the ball a majority of times from held balls and off the boards, due to the aggressiveness and height of all the players.

KENTUCKY

Herman Hale

High School, Brooksville

BROOKSVILLE won its first state tournament by defeating Hindman at the University of Kentucky gymnasium, Lexington.

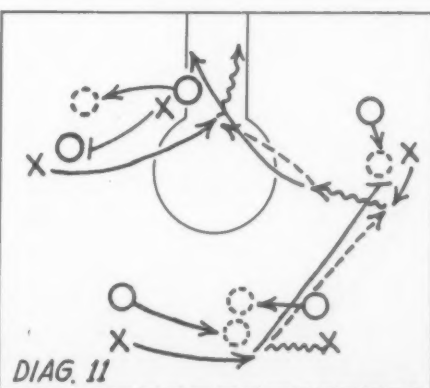
Kentucky is divided into sixty-four districts which are grouped into sixteen regions. There were more than 550 teams participating in the district tournaments this year. The winner and runner-up advanced to the regional. The sixteen regional winners played in the state tournament. Due to the great number of games necessary to win the state title, it is imperative that the team have a great amount of stamina and reserve strength. We are allowed ten men for each team.

The attendance for the three days was about 30,000. The doors were closed several times before the crowd had been admitted. This fact gave the Governor of the state a theme for his trophy presentation speech, a new field house for the University of Kentucky, which is to be started immediately.

The offensive play of the tournament was the most outstanding part of it, with the fast break predominating. The games in most all instances were hotly contested, causing the shots at the gratis line to be the deciding factor. The average difference was less than six points per game.

Zone defenses were rather few this year and most all of the teams, employing the zone, went out in the first round of play. The shifting man-to-man type of defense seemed the most popular method of coping with the fast break and screening game.

Our team used a fast break whenever



possible. If this failed, we then resorted to screens with three in and two out (Diagram 11) or three out and two in (Diagram 12) against a man-to-man defense. Against a zone, we handled the ball fast enough to keep any boy on the team "popping" within a 30-foot radius. We were fortunate in having five boys that could connect consistently within this area.

We used a shifting man-for-man defense with our guards and center blocking and rebounding the opponent's basket. We checked our men in the back court, making possible the conversion of fumbles and bad passes into baskets.

The outstanding thing about our team was its ability to produce in a tight spot. The boys seemed to conserve their energy until the going got "tough" and then they "shot the works." This ability, I believe, is what allowed them to win thirty games this season, ten hard tournament games in two weeks and still come out standing up.

MAINE

W. L. Mansfield

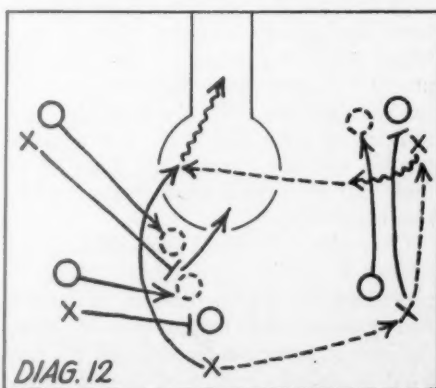
High School, Winslow

WINSLOW won the Central Maine tournament by defeating Lawrence High School and Waterville High School. Lawrence used a zone defense while Waterville employed a man-to-man style. Both Lawrence and Waterville used a set-shot offense, depending, for the most part, on shaking boys loose who were good shots.

In the second regional tournament, Presque Isle and Stearns High gave Winslow two very close games. Presque Isle featured a very fine three-two zone defense with a very fast-breaking offense. Stearns High, on the other hand, played a very tight man-to-man defense. They had an equally fast-breaking offense with some very fine long-shot artists.

Cheverus High of Portland won the Western Maine tournament, held at Lewiston. In winning this tournament, Cheverus defeated Portland High, South Portland and Lewiston. The Cheverus-South Portland game was the feature game. In this game, Cheverus tied the score in the last second of play and then went on to win in the over-time.

Cheverus and Winslow met in the state



championships at the Portland auditorium. This game was a sell-out for days. In fact, no tickets were available for the last three days before the game. It was estimated that 4,500 people saw the game.

Winslow crashed through the Cheverus defense to gain a six-point lead in the first minute of play. Despite valiant efforts on the part of Cheverus, Winslow maintained this lead and finally won a very hard-fought game, 35 to 23.

Cheverus used a T-zone defense coupled with a very slow-set offense. Cheverus played a very careful game, capitalizing on every mistake of the opponents.

In all their games, Winslow used a 2-1-2 zone defense, (Diagram 13). If possible a fast break was used. When the fast break did not materialize, a set offense was used. Winslow was fortunate in having a tall team that used their height to very good advantage. In the fast break, the Winslow offense tried to get their three front men against the opponent's two guards (Diagram 14). In this offense, the center and the forwards did most of the ball-handling. When the fast break failed, the ball was passed back to the guards and a slower set-offense was used. Against a man-to-man defense, screening was used to good advantage.

MISSOURI

Claude Mikkelsen

High School, Joplin

THE Missouri Class A High School tournament was held in St. Joseph this year and the gymnasium was filled for every session.

There were eight teams in the tournament, seven of which were selected from seven regional tournaments and the eighth was the winner of the Kansas City championship.

Only one team used the zone defense and it was defeated in its first game. Of the seven teams that used the man-to-man defense, most of them picked their men up in the offensive half of the floor, but occasionally a team took its men all over the floor. Most of the teams checked men when they were tied up in a screen. Our defense was strictly a man-to-man with very little checking. We usually dropped back and picked our men up as they entered the scoring territory, with the men whose offensive man did not have the ball, pretty well away from their man, playing for interceptions. We also used the man-to-man all over the floor, but that depended entirely upon what type of offense our opponents used and as to how fast they were.

Generally, we would fast-break in our offense if we had a chance. When we played against a zone defense, we stressed fast passing and overloading of zones. Against a man-to-man defense we used what we called a rolling offense which had

a series of continuous screens. In our offense, there was nothing set. There were several variations, and play was always continuous, all over the floor if necessary. This offense was used from almost any formation, three in with two out; two in with three out; or all over the floor, the players passing to a man closer to the basket and cutting on either side of him.

The formation that we used most of the time when our opponents dropped back on defense is shown in Diagram 15. X1 played post, roaming around but very seldom getting more than fifteen feet from the basket. X2, X3, X4 and X5 worked in the roll. X4 passed to X2 and cut either inside or outside of X2, watching for a return pass or serving as a screen. X2 had the option of shooting, returning the pass to X4 or passing to X3 or to any other team mate and cutting either inside or outside of the man to whom he passed, taking a return pass or serving as a screen. This same passing and cutting continued until we got a fairly close shot. The secret of this offense was to keep the of-

fensive men well apart, and to keep the ball and men moving fast. Of course, the timing had to be well worked out.

MONTANA

Class A Tournament

J. A. Thompson

High School, Livingston

IN MONTANA our interscholastic basketball set-up is much different from that in most states. Here in Montana, we have a Class A conference composed of the sixteen largest schools of the state. This conference race lasts the entire season starting the latter part of December and running into the first week of March. The team having the best percentage at the end of the season is declared the conference champion.

The second week in March is tournament time for the basketball teams in Montana. We have two tournaments played the same week; one in the Northern part of the state and the other in the Southern part. Eight Class A schools go to the North and eight to the South; eight Class B schools go to the North and eight Class B to the South. The Class B schools win their way to the tournaments by winning at their district tournaments.

At the Northern and Southern district tournaments, we have two separate eight-team tournaments; one for the Class B schools and one for the Class A schools. The two tournaments are run together alternating the Class A games and the Class B games with Class A teams competing against Class A teams and the same for the Class B teams.

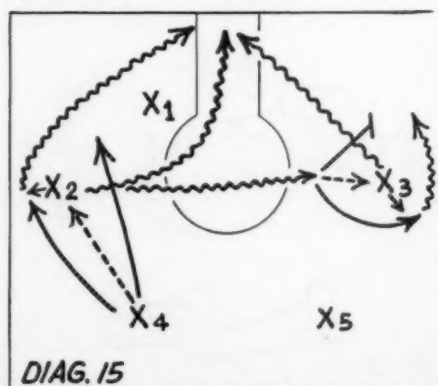
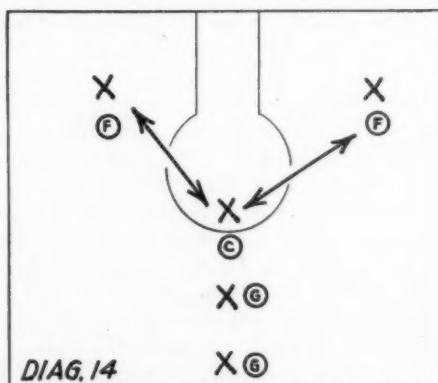
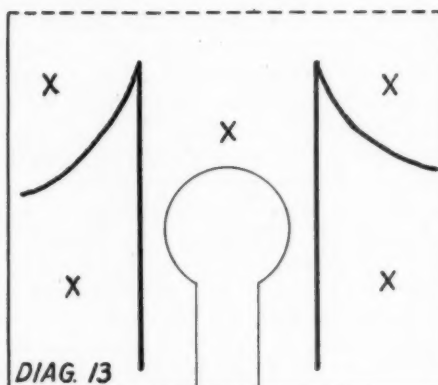
I understand that this set-up may be changed for next year so that there will be four district tournaments instead of two, the four tournaments being held at scattered places over the state.

If a team is successful it plays only three games to win the eight-team tournament. For each division we then have a Class A winner and a Class B winner.

One week after the district tournament, the two winning teams from the South and North meet to play a round-robin tournament for the state Class A and Class B championships and the grand state championship. The team winning all three games is entitled to the latter honor.

My team this year won the Class A conference championship, the Southern district championship and the Class A championship for the state of Montana.

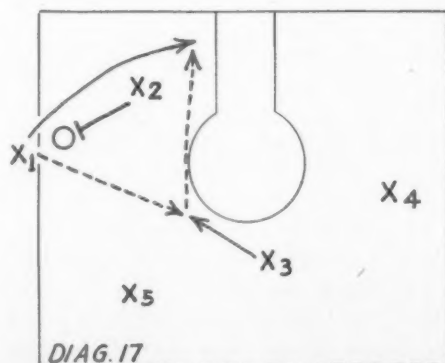
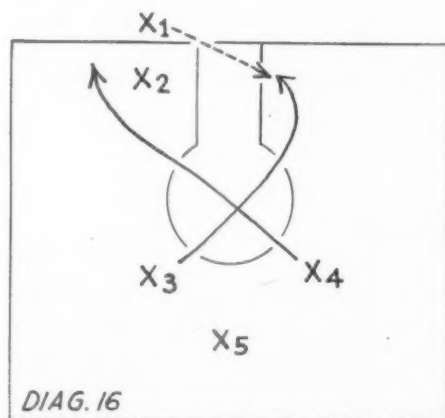
My team played a man-for-man, fast-break type of basketball. Most of the schools here in the state play the fast-break style. It is not uncommon for the scores to be in the forties and occasionally in the fifties. My team had an average of about thirty-five points per game this season, which is a little better than our average for the past years.



In coaching the fast break, I find that there are very few set plays that can be worked, but I do have a few that I use. For out-of-bounds plays I have definite plays that work very well for me, but set plays for fast breaks do not work. I find that I must practice definite set-up plays that are as near game situations as possible, so that the boys become so accustomed to doing the thing in practice that when the situation arises in the game, they do it without thinking. One of the practices that I use for this is getting the ball down the floor fast and having three boys passing it in on two, and then try for a basket when the opportunity comes.

In our high scoring games one might say, there cannot be any defensive work, but there can be. A team with a poor defense will never win. The fact is that in our fast-breaking games, each team has many more opportunities to score because of their fast method of advancing the ball to the front court and their freer method of shooting. Each boy must be fast, capable of staying with his man and of finding opportunities to break away and score for his team. It is a very good adage that says, "No team is stronger than its weakest member." It does not take another team long to find the weakness of an opposing team and then play its weakness.

It is quite impossible to give any set method of playing all teams. They are all different because each member of the teams is different. Each coach likes a different type of defense and offense, so when he knows the characteristics of the team he is playing, he can plan his offense to meet the situation.



In our state play-off, we ran into one team that played a five-man zone defense, another that played man-for-man, but slow to pick up their man, and a third team that played a man-for-man aggressive style. Against this team, we found that we could play the ball near the center of the court and then by using a screen or a fast break we were able to free a man in a scoring position. On the team that picked up their man slowly, we tried to beat the defense down the floor and were successful in this. On the five-man zone, our best work was accomplished when we were able to get the ball in the front court before the defense could get set. If we were not successful in advancing the ball in the front court before the defense was set, we then used a set play to get into position for a shot and then depended on follow-in shots. With all my experience in basketball, I find that a five-man defense always slows up the game and makes it less interesting from the spectator's point of view. A team must be more cautious and more conservative with the ball; they must work it around until a situation arises that gives them an opportunity to score, and those opportunities are usually few and must be taken advantage of.

One of the out-of-bounds plays that worked well for me is that shown in Diagram 16. X1 took the ball out of bounds under the basket. X2, in front of X1, might get the ball if his man played him loosely. X4 and X3 broke. X4 passed just in front of X3 whose defensive guard had been blocked off by X4; X3 went in for a set-up.

Another play that worked well in the tournament is the one shown in Diagram 17. X1 took the ball out of bounds. X2 moved over and screened the defensive man of X1. The ball was passed to X3, who, in turn, passed to X1 who had broken away from his defensive player through the efforts of X2. The play is very simple but very effective if played against a close-checking defense.

Class B

A. V. Himsl

High School, Bearcreek

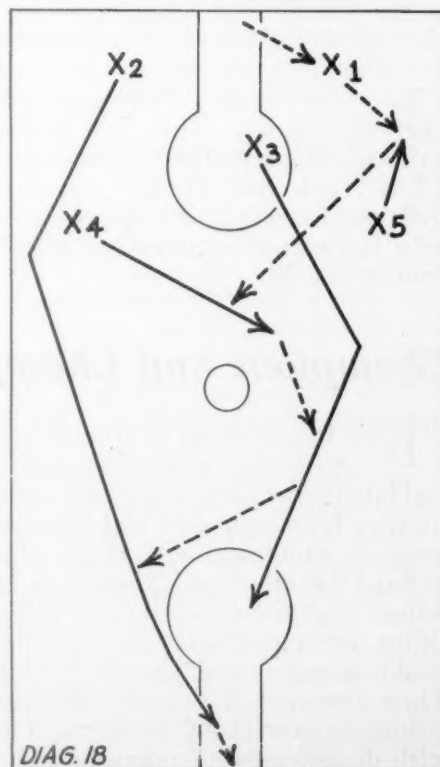
IN THE Southern-division tournament, in which Bearcreek competed and in the state tournament the predominance of the fast-break offense and of the man-for-man defense was notable. When a team occasionally used a zone defense, the reason was apparent, lack of individual defensive power or lack of reserve strength.

Apparent, too, was an attempt to capitalize on the current modification of the three-second rule. Teams having tall pivot men utilized the hole, whenever the fast-break offense failed to produce a scoring opportunity. As might be expected, Western college tactics were much in evidence, particularly the one-handed shot.

To the foregoing description of Montana basketball, Bearcreek was no exception. We employed an extremely fast break and featured a group of ambidextrous scorers. In common with other contestants we used occasional screens but relied chiefly upon incidental screens developed in the course of the fast break. Described by sport writers as "fire department ball," our system was one adapted to a group of very fast boys; and it produced results. The score book shows a scoring record far in excess of a point-a-minute average. In the meantime, our man-for-man defense held the opposition to a 22-point average. By checking the opponents deep in their own back court our forwards frequently intercepted hurried passes to score set-ups unmolested.

Spectators and sport writers commented upon the heavy scoring of our guards. This unexpected scoring power was attained by the use of a guard, who did not recover the ball or who did not start the play, to lead the offense. For two years prior to the past season we had used a 2-1-2 zone defense quite extensively, and the boys naturally had regular positions from which to break when the ball was recovered. The lesson was well learned. This year, when we abandoned the zone, the boys found themselves in relatively the same breaking positions. The opposite guard would break as soon as recovery was made while the center (or forward who happened to be in that position) broke from the other side. The result: two on one, or frequently three on one. The accompanying diagram may clarify the above explanation (Diagram 18). Guard X1 recovered the ball from the backboard, pivoted and

(Continued on page 24)



The ATHLETIC JOURNAL

Nation-Wide Amateur Athletics

Vol. XIX

May, 1939

No. 9

Published by
THE ATHLETIC JOURNAL PUBLISHING CO.
6858 Glenwood Avenue
Chicago, Illinois

JOHN L. GRIFFITH, Editor

Early Buying Best

EACH year for twenty years we have taken the liberty of reminding the coaches at this time of the year that it is best to place their equipment orders early. No doubt everyone realizes that football orders, for instance, placed now can be delivered on time in the fall, while rush orders early in September are hard to fill. Further, it is not necessary to point out that the manufacturers can turn out better merchandise when their factories operate on a regular schedule.

Everyone realizes that these and other factors that enter into the purchasing of equipment are sound, yet the average coach has a good many demands made on his time, and when he does the buying, which is true in the case of most of the coaches in the schools and colleges, he sometimes delays in placing his orders and then sends through a rush order at the last minute.

The schools and colleges have had a pretty good year financially. They are in far better shape to buy satisfactory athletic goods now than they were a few years ago. If they will at this time estimate their needs and place their orders, they will not only help the manufacturers but they will also get improved service.

Champions and Championships

"THE foundations of American society were laid by men who endured economic want and physical hardships that they might gain access to opportunities few in number and inconsiderable in importance as compared with those which today lie close at hand for all of us. There was no thought in their minds that the conditions of life ought to be anything but a challenge or that the rewards of life could be possessed except through valiant effort. They accepted the conditions and went their individual ways without dismay and without complaint, with definiteness of purpose and with high aspira-

tion. Thus, from recognition of the fact that life must be a struggle for men to profit most from it, arose a great people." These are the words of Ernest M. Hopkins, President of Dartmouth College, taken from an article that appeared in the Atlantic Monthly October, 1936.

In athletics we recognize the fact that "life must be a struggle for men to profit most from it." The reason why victory is sweet for the athlete is because he has worked hard to accomplish his aims. This month we recognize the achievements of the championship basketball teams in the various states. The teams that won paid the price for victory.

The fact that a boy can shoot baskets accurately or that the members of the winning team mastered the technic of basketball in itself is not important, but the fact that the players subjected themselves to discipline, worked hard, and thus were able to overcome their opponents is tremendously important. The ability to get good grades in the classroom is worthy of mention, not because of the grades but because those who did superior work in their scholastic subjects were able to concentrate and to muster all of their capacities and talents in earning the grades. Superior achievements in life's competitions come to those who struggle; those who struggle and who have the will to win and who are willing to undergo the necessary training are benefited thereby.

The authorities in a certain high school no longer pay tribute to honor students in that school, the idea being that the champions should not be glorified and, perhaps, by handicapping the champions, the others may be given a chance to excel. This is not the philosophy of the playing fields and it is not in accord with our American philosophy of life. It goes without saying that the teams that won their honors in their state tournaments won those honors fairly. This is accepted as a foregone conclusion in school and college athletics. The idea that the victors can win only by cheating is not true in athletics.

College Baseball

THERE was a time when very few college men signed contracts to play baseball in the major leagues. Today fully 25 per cent of the men who enter big league baseball are college trained players. The professional baseball interests are looking, therefore, more and more to the colleges for their recruits.

This year there have appeared in the press stories concerning many college undergraduates who signed contracts before graduation. Some who signed contracts were permitted to finish their college courses but were asked to agree not to play football or engage in sports other than baseball.

College baseball is generally conducted at a loss. Possibly the total deficit in college baseball throughout the country is annually something like a quarter of a million dollars. If the colleges develop good ball players only to have these men signed by the

major leagues before the players have graduated, and if this practice cannot be curtailed, then ultimately the colleges will become tired of paying the deficit and of conducting training schools for the majors.

Moral and Human Education

IN the school law of Illinois, as issued by the Superintendent of Public Instruction of Illinois, appears the following act which was approved June 14, 1909.

"Be it enacted by the people of the State of Illinois, represented in General Assembly: That it shall be the duty of every teacher of a public school in this state to teach to all the pupils thereof honesty, kindness, justice and moral courage for the purpose of lessening crime and raising the standard of good citizenship." The failure to observe this law carries with it a drastic penalty.

We have frequently suggested that the coaches of the schools and colleges not only have a better opportunity than others to improve human behavior by teaching sportsmanship, fair play, and all of the other character-building qualities to be found in a well conducted athletic program, but that the job is being done far better than most people realize.

We are glad to publish this enactment by the Illinois State Legislature by way of indicating that in one state, if not more, the public officials feel that education is more than mind training. We realize of course that a difference of opinion exists among educators regarding this matter. Some hold that it is the sole function of the school or college to teach students to think; that it is the function of the home and the church to see to the development of the social and moral qualities needed in good citizenship. Others agree with the idea back of the Illinois enactment that it is the function of the school to deal with matters that have to do with improving human nature.

Football Offense

THE American Football Statistical Bureau, Secretary Homer F. Cooke, Jr., has compiled statistical records of the 1938 football season. The statistics have to do with eighty-five leading college and university football teams.

A year ago we reported that the colleges were scoring more points per game than previously was the case. This study by the Statistical Bureau reveals that last year the average number of points scored per game by both teams was 23.58.

These gentlemen have also released some other interesting figures. For instance, the net yards gained by rushing in some 1400 games were 140.1. The average number of yards gained by forward passing per game was 70.1. The average gain per play by rushing 3.43 and the average yards gained for attempted forward pass 5.10. The average gained for completed forward pass 13.7 and average per punt was 37.16.

This study shows that football in 1938 was more

of an offensive game than it was the previous year. This is a healthy sign. First, it shows that the coaches are offensively minded and, second, that football has not become a defensive game as some of the critics have charged. Undoubtedly it is true that both players and coaches prefer a game in which the offensive has a slight edge to one in which the offense is restricted to the degree that scoring is only possible when one team is considerably stronger than the other.

Why National Collegiate Athletic Association Championships?

THE National Collegiate Athletic Association annually sponsors national meets and tournaments in track and field, cross country running, swimming, wrestling, boxing, gymnastics, and this year for the first time in basketball. The Association co-operates with the United States Lawn Tennis Association in promoting a national collegiate lawn tennis tournament and with the United States Golf Association in promoting a national golf tournament.

A national track and field meet was the first championship event to be sponsored by the N. C. A. A. It proved so successful that the swimming coaches asked that the association sponsor a national swimming meet. Wrestling and other sports followed. A year ago the basketball coaches' association requested of the N. C. A. A. executive committee a national basketball tournament. The first one was held this year. Highly successful, financially and from the standpoint of interest, it will grow in importance as the coaches who wish to enter teams in preliminary tournaments arrange their regular schedules accordingly.

While the meets were not started primarily with the Olympic games in view, they have been of value in selecting undergraduate stars for competition in the Olympic final meets.

The tournaments so far have furnished no problems in the selection of competitors. Any member school of the N. C. A. A. may send representatives to the various tournaments, the coaches of the member institutions knowing if they have men of national-tournament caliber.

For the national track and field, the selection is left to the N. C. A. A. track and field rules committee, the representatives of the eight districts on that committee making a check-up on the records of the conference meets in their section. These records are compared and six or seven men who have performed consistently are invited by the N. C. A. A. rules committee to compete in the national meet.

For the selection of representative teams for the first basketball tournament, the basketball coaches not wishing to add to otherwise heavy schedules by requiring preliminary tournaments in the various districts appointed selection committees. The teams selected participated this year in an Eastern playoff at Philadelphia and a Western at San Francisco.

The same rules of eligibility govern all National Collegiate Athletic Association meets and tournaments.

The 1939 Basketball Championships

(Continued from page 21)

passed to the forward X5, breaking toward the side line. X5 pivoted and passed to the forward X4, breaking diagonally across the floor. The forward X4 passed to the center X3 who had broken down the floor from the side on which the play started. In the meantime X2, the opposite guard, had broken out and down the floor to receive the pass from X3. After passing, X4 followed his pass into scoring position to the left of the free-throw circle and X5 went down to the right of the free-throw circle. X1 played a tail-back position, back of the offensive free-throw circle.

NEBRASKA

Class C

Ray Jenkins

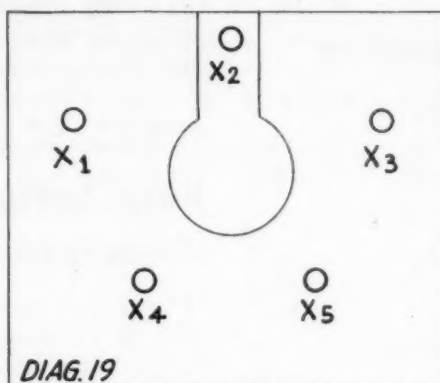
High School, Ohioa

THE Nebraska High School basketball tournament was held at the University of Nebraska coliseum at Lincoln, Nebraska. Forty-eight schools were represented, playing in three classes of sixteen teams each. Previous to this tournament, district and regional tournaments were held throughout the state to reduce the some five hundred original entries. This year there were eight Class A regional tournaments with the winners and runners-up appearing in the Lincoln tournament; sixteen Class B regionals with only the winners going to Lincoln; and thirty-two Class C district tournaments. The thirty-two Class C district winners met in play-offs which left only sixteen C teams for the state championships.

Several interesting features of this year's Nebraska tournament were: (1) The increased use of the zone defense and the fast break. (2) The great number of close games. There seemed to be no outstanding team in the tournament and very few one-sided games. (3) The increased attendance which naturally meant greater returns to competing teams.

We started basketball during November and practiced about an hour and a half a day. In spite of the fact that we started early, my team did not hit its stride until the middle of February.

As to team play, we used a straight man-to-man defense and a fast break, employing the side outlet. My reason for using that particular defense and offense was that it suited my boys the best. However, in the last two rounds of the tournament, my team slowed down just enough that the fast break was ineffective. For that reason in the final game we discarded it entirely. When we did that, our defense became more effective and we won



the game very handily.

I was fortunate in having a number of rangy boys, eight of whom had had experience in the 1938 state tournament. We used absolutely no set plays, adapting our play to the type of defense that the opponents used. Against a zone defense, we used three men in, with the two guards out. Against a man-to-man defense, we used a double pivot-post with three men out. Of course, the only time we set up like this was when our fast break was held up.

I believe that the advantages of this particular type of offense and defense can be seen from the fact that we were the high-scoring team of the entire tournament and in the finals we held Surprise to thirteen points which was the lowest score of any team in the tournament. Incidentally, that team held two wide-margin victories over Beaver Crossing, the Class B champions.

Class B

N. A. Sullivan

High School, Beaver Crossing

IN the early part of our season a good deal of race-horse basketball was seen, our opponents using a long-passing game and a number of different types of fast break. Occasionally we played a team that was slow and had set offensive plays. Toward the end of the season, all of the teams started to slow their offenses and put a little more stress on the defensive game. As a result, the scoring was lower.

During our season of twenty games, we met only two teams using man-to-man defenses. All of the other eighteen games were played against teams using the shifting zone defense or some modification. Usually the modification was to drop one from the front line back into the free-throw circle to stop pivot plays.

During the season, we won seventeen out of the twenty games. We won thirteen games in a row and beat the defending Class B champions before the boys

began to get a little stale. We dropped three games out of the next five and then began hitting our stride again just before the tournaments, on the last two games of the season.

Our offense was an interchanging figure eight, with the team drilled very strenuously in ball-handling. As a result many variations came up that the boys were able to work out for themselves. They were given every opportunity and encouraged to devise scoring plays from the figure-eight offense. As this offense is designed mainly to break a man-to-man defense, it may seem surprising that we used it; but with a much taller than average team, it was a great success.

We used a shifting zone defense with one variation to pick up a team that was slow in bringing the ball into play. In this variation, the set-up, shown in Diagram 19 was as follows: X1, X2 and X3 shifted with the ball, always keeping one man under the basket while X4 and X5 played out, taking long chances on interceptions. We could safely do this because all three men playing back were tall and could knock down a great percentage of the shots. They were very accurate on the rebound, thus making it possible for a team to get off only one quick shot.

During tournament play, we started each game using fast breaks, attempting to run up the score as quickly as possible. As most teams were trying to play a slow deliberate game, we were successful on interceptions or in tying the ball. We were almost sure of the tip so we had plays set up, quite the same as the old center-tip plays. Because of the leads, that we were successful in getting, my second squad was able to play almost half of each of the preliminary games of both the district and state tournaments.

NEVADA

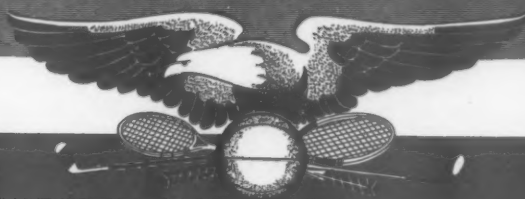
Lee Liston

Lincoln County High School

Panaca

THE Nevada Interscholastic basketball championships held in Reno were generally regarded as a tournament of upsets. The two smallest teams, as well as the two teams least favored to survive, met in the finals. All games were close, with the largest margin of victory being thirteen points in the championship round. All other teams used a dribble-screen type of offense, featuring accurate long shots by the guards. They also depended on screen plays to break men loose under the basket for close-in shots.

We employed a fast-break offense, quick drives and short passes under the basket



PROTECTION WITHOUT INTERFERENCE

When your squad is equipped with Spalding gear, it's ready for action. This equipment was designed to give players maximum protection without hampering their freedom of movement. High grade materials and careful construction give it the long wearing qualities always associated with Spalding.

A.C. Spalding & Bros.
ATHLETIC EQUIPMENT



10 FP

THESE COLLEGE SHELL PANTS COMBINE FREEDOM AND SAFETY!

Made of 9 oz. tan army duck. Tunnel belt loops. Worked eyelets with leather frog inside and outside at bottom of fly. Set in crotch piece extending from fly up the back of seat. Leather frog in back at top of crotch piece. Thigh guard pocket with separate pocket for side swipe fibre. All knee reinforced on inside with white drill with knee pad of close quilted all kapok extending from bottom of thigh guard. Elastic across bottom of legs, cut-out in back of knee. Let-out seams back of legs.



52-A-SC

THIS SMART HELMET IS TOPS IN SAFETY!

Air-Lite cushion rubber-padded. Aviator style with molded ear cups. Elastic straps to give a snug fit. Padded, adjustable chin strap. One-piece, ventilated leather crown. Made up in any combination of black and tan, all sizes.



141-SP

THE MODERN FAVORITE IN SHOULDER PADS!

Air-cushioned (patented), rubber-padded, covered with airplane cloth. Leather-cup, leather-bound . . . reinforced with fibre and springs. Adjustable lacing and elastic body straps. Full shoulder protection is assured.

*Give your boys every playing
advantage . . . outfit them with
Spalding equipment.*



F-01

SHOES FOR SPEED AND COMFORT!

These medium-weight, football shoes are built on Spalding patterns, for back-field and line play. Genuine yellow-back kangaroo, Goodyear construction, with double web reinforcement. Spalding official SAFE-T-cleats as recommended by the Rules Committee. Sizes 6 to 12, C, D, and E widths.

for set-up shots. We used no set plays or screens except those that came naturally from passing and breaking. At no time did we resort to long shots since passing and close-in shots will usually overcome any lead. Eight of our men were about equal in ability, all being less than six feet tall. We had one guard who could consistently retrieve the ball and get it out for a fast break. Under our basket we drove hard on follow-ins and scoring was usually divided among several players.

We played a close check man-to-man defense, switching when necessary to meet screens and set-up plays. In the final game, our opponents were held to one point in the fourth quarter and one point in the over-time period.

After losing ten of our first eleven games, we made a come-back to win eleven straight and a championship. This shows that average boys who will conscientiously train, sincerely maintain condition, and develop team spirit and morale can win.

NEW MEXICO

Robert Pierce

High School, Lordsburg

THE New Mexico state basketball tournament was held in the Carlisle gymnasium at Albuquerque. Each year the state tournament is held in different cities, voted upon by the board of control.

New Mexico is divided into eight districts, the champion and runner-up in each district being entitled to compete in the state tournament. This year's tournament was the closest in history. Of the

fifteen games, ten ended with a margin of six or less points.

Most teams in the tournament used a zone defense. Lordsburg used the shifting man-for-man defense the first half and a strictly man-for-man the last half. My boys always tried to intercept the other team's passes. When we were in possession of the ball we used a mixed fast and slow break down the court. The boys studied most of their plays at all times. When we started to advance the ball in the opponent's territory the ball was passed short and fast with a close-up shot the result.

Lordsburg met Albuquerque for the championship game. Each team used a man-for-man defense, fast and slow breaks. Each team scored at all times. Lordsburg stalled the last few minutes of the game, passing up set-up shots.

As coach, I will say that good teamwork on the part of all my players was the deciding factor in winning this tournament.

Three plays as shown in Diagrams 20, 21, and 22 were used to good advantage. In the play shown in Diagram 20 X2 dribbled down the court, passed to X3 who dribbled on down. X4 cut in front of X3, X3 continued to dribble, passed to X5, X4, X2 or shot with X4, X5 and X2 following.

In Diagram 21, X2 passed to X3 who passed to X4 in the corner. X5 cut, X4 passed to X5 and then cut for the basket. X1 cut across; X5 passed to X1; X2 cut for the basket; X5 came around X1 who passed back to X5 or faked, passed to X4 or X2 standing under the basket or shot with X2, X5 and X4 following.

Diagram 22 shows a fast break after a basket was made. The players were scattered. X4 passed to X1; X2 broke fast for the basket; X1 threw a long pass to X2. If a guard was there, X1 dribbled down the center fast, with X5 and X2 going from the basket. X1 passed to X2, X2 to X3, X5 or X1 for a set-up shot.

NORTH DAKOTA

Ernest H. Gates

High School, Jamestown

THE twenty-sixth annual basketball tournament for Class A high schools held in Bismarck, had as closely matched teams as any tournament ever held in the Capitol city. Pre-tournament favorites fell by the wayside in the first and second rounds, although one of the finalists was given an outside chance by the sport writers as a possible champion.

Only one team in the tournament used the zone defense; others worked off the man-to-man theory and some used a combination of both.

All of the teams used, more or less, a fast break at the opportune time with individual cleverness and no set style of

play. When teams used the slow break, the majority depended on ball-handling, although a few employed screen plays to get the shooter set and in good position. We used a fast break whenever possible and because of our height-advantage used a long pass. We were able to use the long pass on out-of-bounds plays and on rebound plays off the defensive board.

The faster teams of the tournament handled the ball nicely, using short passes, considerable dribbling and much faking. The one-hand shot seemed to be very popular among the faster players who would go in. One pre-tournament favorite depended upon this type of shot almost entirely.

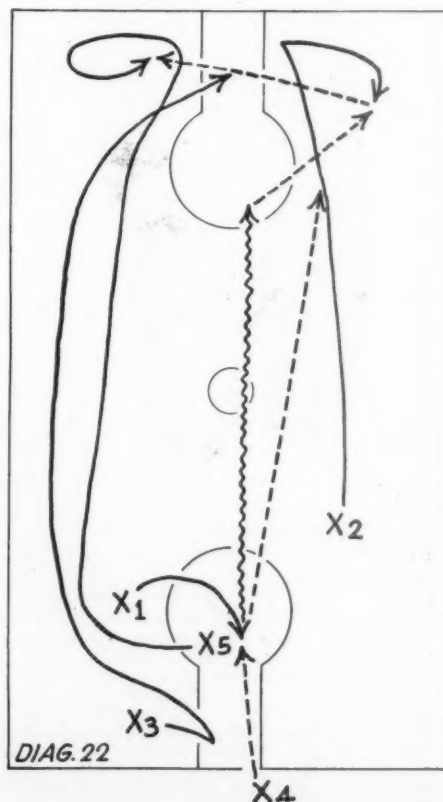
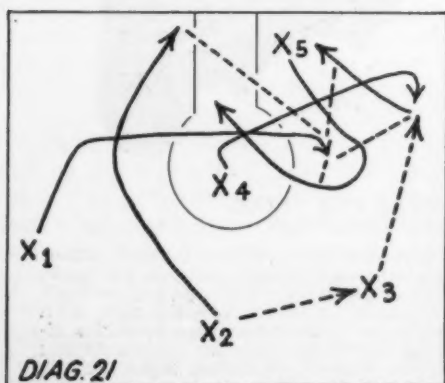
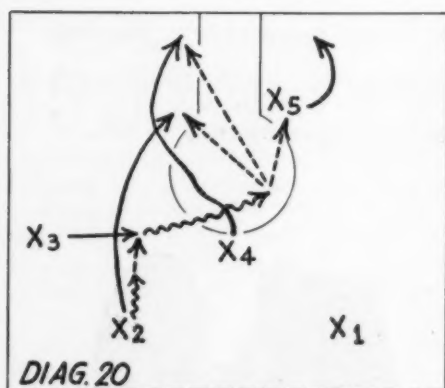
Set offenses were both three in and two out and vice versa. However, these offenses were used only second to the fast break, as those teams that waited for a slow break usually found a pressing defense waiting for them.

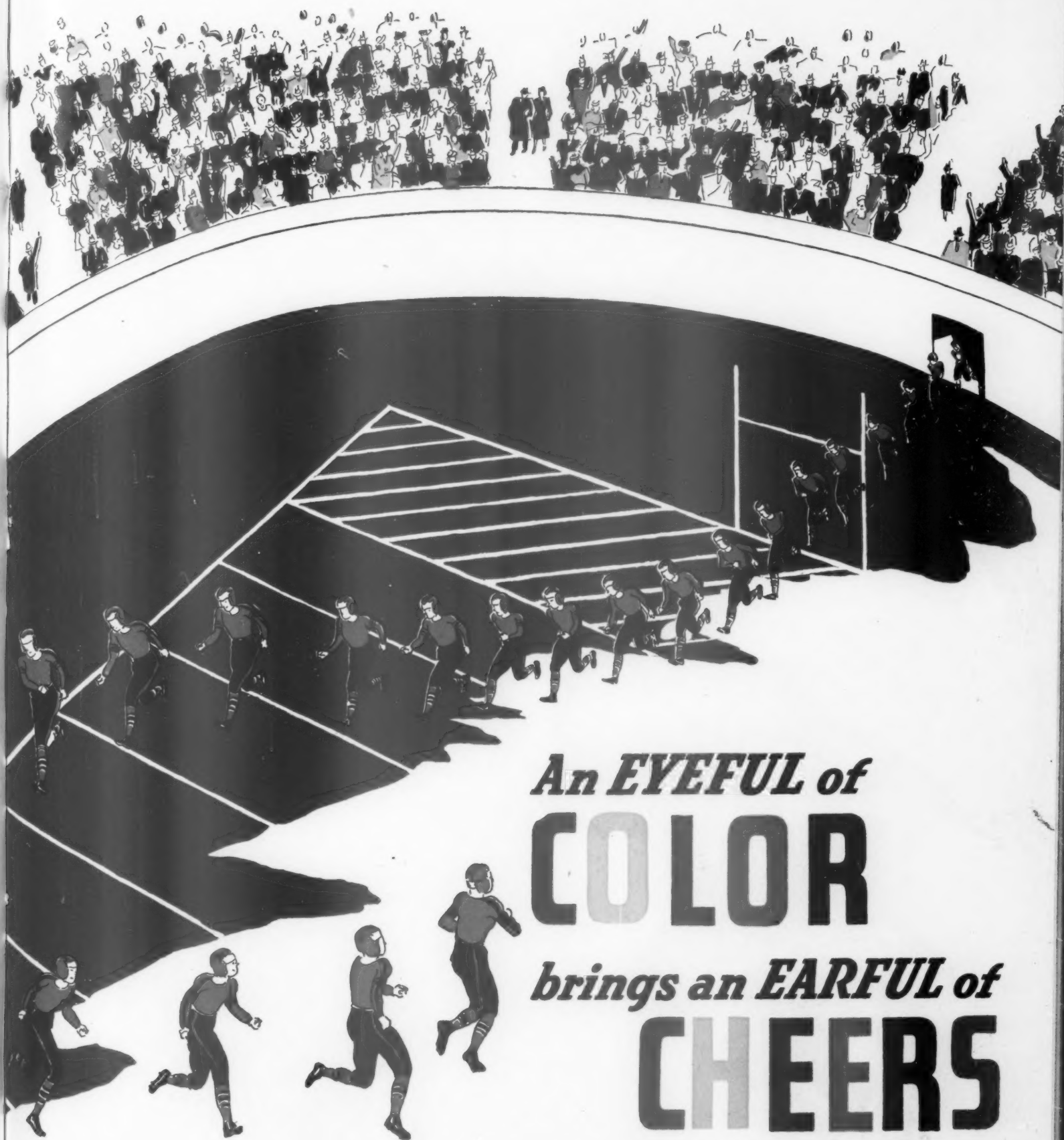
We tried to use a fast break as much as possible. Our team was big and in excellent condition. We used rebound men by assignment and asked no player to act as rebound man on both boards.

Our fast break was worked in two ways and the method used depended largely upon the defense that we were against. For a pressing defense we screened, but otherwise we played as shown in Diagram 23.

X4 or X5 passed out to X3 or X2. The man who did not get the ball screened, so that the passer could break down the center court. In the majority of cases, X3

(Continued on page 46)





An EYEFUL of
COLOR

brings an EARFUL of
CHEERS

GoldSmith

COLO
Give yo



COLORFUL

FOOTBALL UNIFORMS

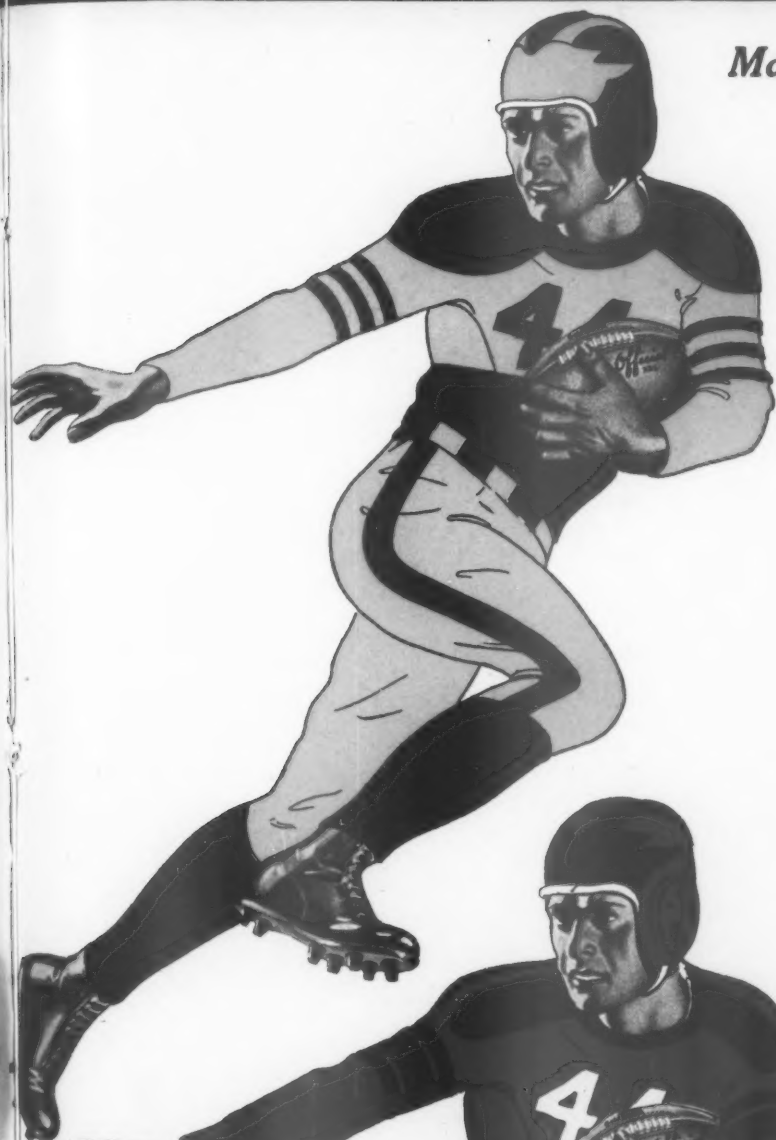
Give your team color.. Give it eye appeal *and* watch the turnstiles click!

Make your team outstanding with...

GoldSmith

COLORFUL STYLIZED FOOTBALL UNIFORMS

The color combinations and styles shown on this page, especially designed by Goldsmith style experts, give you an idea of what can be done. All are distinctive, different, and eye-appealing—shirt and pants styles are interchangeable. *See your local GoldSmith distributor. He will be glad to help you select your styles and color combinations.*



1 9 3 9




Pre-view...

GoldSmith

**FOOTBALL
EQUIPMENT**

INSTITUTIONAL EDITION

JUST OFF THE PRESS *Yours* FOR THE ASKING

 THE P. GOLDSMITH SONS INC.
DEPT. H. CINCINNATI, OHIO, U.S.A.

Food for Energy

THIS is the second of a series of articles on the value of various foods in the production of energy to increase endurance in athletes. In the March, 1938, issue of this publication C. W. Hackensmith, University of Kentucky, presented the results of a study on sugars. The results of a recent study conducted by the Athletic Journal will be carried in a future issue.

AS science unravels more and more of the mysteries of the human body, it becomes increasingly important for athletes, their coaches, and their trainers to keep abreast of certain of these discoveries. Gone are the days when athletic prowess was merely a matter of mustering sufficient brawn and brute force to physically overpower opponents.

The advantages of knowing as much as possible about the science of athletics are obvious even to spectators of contests, and the study of *athletic science* has long been recognized by coaches and trainers as an important phase of their work. Perhaps the most obvious example of the practical value of applying scientific principles is seen in the art of jujitsu by which the science of leverage is utilized to overcome superior strength and weight. So in practically every sport,—both in individual contests as track, fencing, boxing, and in team play such as football, basketball, hockey,—in all the realm of athletics, science is playing a leading role.

Much worthwhile study has been devoted to the science of determining how the athlete can best handle himself in order to make every movement most effective, to save split seconds wherever possible, and to economize muscular energy by eliminating waste motions. Athletes benefit remarkably from training in these essential principles and those who apply themselves sufficiently learn to become practically 100 per cent efficient in utilization of their available muscular energy.

Consequently, athletic science can feel just pride in having discovered and enunciated many basic principles of muscular economy. Of equal importance to the athlete and to the furthering of the progress of this science is the study of the muscle at work, the study of the processes which underlie the athlete's armamentarium of muscular energy. In examining these processes, it is noted that physiology (the science of body functions) has already investigated these phenomena and has made discoveries that are of inestimable value to our science.

Years ago, physiologists joined forces with chemists and began the search for the source of muscular energy. Many

facts were obtained, all of which seemed to point to sugar as the substance which furnished this energy. It was found that the contracting muscles consumed oxygen, that there was a decrease in the sugar content of the muscle, and that substances formed by the oxidation or burning of sugar appeared in the muscle after contraction. Further investigation revealed that after contractions of the muscle had been prolonged to the point of fatigue, the sugar content of the muscle had practically become exhausted, which led to the conclusion that muscle fatigue was caused by depletion of the sugar supply. However, during the period of recovery from fatigue, it was observed that the sugar content of the muscle would increase even though the blood supply to the muscle was cut off.

How then did the sugar reappear in the muscle? It had been found that the circulating blood contained considerable amounts of sugar, and it was known that the liver, as well as the muscles stored reserve supplies of sugar. But when the fatigued muscle was deprived of blood, sugar nevertheless reappeared during recovery. Further investigation revealed that the muscle was capable of utilizing certain of the substances released when the sugar was oxidized and from these substances re-building a sugar supply. However, only about four-fifths of the original amount of sugar reappeared. The intermediate substances from the remaining one-fifth were further oxidized to supply the energy need for the rebuilding of the four-fifths. Thus, the inherent characteristics of muscle tissues were found to embody a very ingenious mechanism for quick recovery from fatigue and for conservation of the substance, sugar, which seemed to be its source of energy for contraction or performance of work.

As a result of these physiological studies, it seemed readily apparent that the means of increasing energy and muscular endurance and postponing the onset of fatigue were at hand. By eating extra amounts of sugar or other foods which could be transformed into sugar, it seemed obvious that the muscle could perform a greater amount of work because it would have a greater store of potential energy. Thus began the practice of feeding sugar or sugar-rich foods such as oranges to athletes just prior to athletic exertions, and hopes were high that a period of super endurance for athletes was being ushered in. It would no longer be necessary to replace a key player who had become fatigued with a substitute who, though inferior in ability, had the advantage of a fresh supply of energy. If dextrose (a quickly absorbed form of sugar) were fed

ATHLETIC TAPE

12 INCHES x 10 YARDS

Developed especially for corrective and preventive strapping. Minimizes usual skin irritations caused by constant taping. Large size core for easy handling. Tape unwinds freely. Adheres instantly under all climatic conditions.

ROLL ASSORTED CUTS SR 2570
1-1/2" 2-1/2" 4-2" x 10 YARDS

MINIMUM IRRITATION
Minimizes usual skin irritation caused by constant taping.
Sold by Sporting Goods dealers only.
THE SEAMLESS RUBBER CO., INC.
New Haven, Conn., U. S. A.

**Combine Coaching Studies
This Summer with the Finest
Vacation You've Ever Had**

Enroll in

DULUTH STATE COACHING SCHOOL

**AUG. 14-19, INCLUSIVE
TUITION—\$15**

Two National Professional Football League Clubs—the New York Giants (World's Champions) and the Chicago Cardinals—will be training here while the Duluth State School is in session. Watch these two great squads, with a galaxy of All-American talent, work out daily as a part of your coaching course. Never before has any coaching school offered an opportunity such as this.

STUDY UNDER AMERICA'S ACE COACHES

'FRITZ' CRISLER Head Football
Coach, University of Michigan

HAROLD OLSON Head Basketball
Coach, Ohio State University

STEVE OWENS Head Coach, New
York Giants

ERNIE NEVERS Head Coach, Chicago
Cardinals

One week of intensive, practical coaching instruction taught by men who knew their business and who will tell you what you want to know.

**Bring the family along for a
thrilling, economical vacation
on the shores of Lake Superior.
The best in fishing, golfing,
swimming—in America's cool-
est summer climate, famous
for its Hay Fever Relief.**

**For Particulars, write
Lloyd Peterson, Director**

**STATE TEACHERS COLLEGE
DULUTH, MINN.**

"The Air-Conditioned City"

often enough during rest periods, every athlete could continually rebuild his store of muscular energy so that his performance would be as brilliant during the closing minutes as at the beginning of the contest.

This was the utopian dream which the science of physiology offered to the science of athletics. And not only with respect to superior prowess resulting from increased endurance did this simple regime appeal to coaches and trainers; it was well known that accidental injuries to athletes occurred with much greater frequency after they had become fatigued because they lost some of their ability to handle themselves properly and to automatically utilize their muscular abilities to protect themselves from accidents.

Dextrose was probably the commonest form of sugar used because it imposed practically no burden at all on the digestive system. It requires no digestion and so is rapidly absorbed into the blood which carries it to every part of the body. Dextrose held the promise of greatly improved athletic performance, but it is hardly necessary to state that it failed almost completely. In any evaluation of the results achieved by dextrose feeding it is essential to eliminate the psychological factors involved. Certain temperaments seemed to "take to" dextrose and many athletes were seen to perform better for longer periods, while others showed no or very little improvement.

That the better performance in some instances probably was the result of a psychic uplift rather than an actual increase in muscular abilities now seems evident. As is true in all sciences, there were some physiologists who were skeptical of the simple explanation of sugar as the source of muscular energy, and they pursued their experiments, devising ingenious methods by which they could

more accurately investigate this most primeval of phenomena. Obviously they could not be satisfied with the sugar theory alone because muscles were known to be very complex in their chemical structure and it seemed likely that these other chemicals served some useful purpose in the muscle.

By employing intricate experimental methods some of these physiologists found that muscles were able to contract in the absence of an oxygen supply. They reasoned that if energy for contraction was truly derived from the oxidation of sugar, then this anaerobic contraction (or contraction in the absence of oxygen) could not take place. They further found that when this type of contraction did occur there was no decrease in the amount of sugar originally in the muscle and furthermore none of the substances produced by the oxidation of sugar made their appearance in the muscle.

The anaerobic contractions of muscle were found to be entirely normal in type, strength, and duration. As their investigations proceeded, they eventually discovered that a completely unsuspected substance was the true source of muscular energy, a substance which has received the name, *phosphocreatine*, because it is composed of the element, phosphorus, and the complex substance, creatine. Later research by many other physiologists has amply confirmed phosphocreatine as the substance which furnishes the energy for muscular work and has elaborated the complex processes which take place in the muscle during contraction and during recovery—processes which deserve the careful attention of athletic coaches and trainers because a clear understanding of them furnishes the knowledge of how muscular energy may be increased and how the welfare of athletes in this respect may be promoted.

Night Baseball

(Continued from page 12)

Power Supply

With an installation of 100 to 150 floodlights a transformer may be mounted on each of Towers 3 and 4 to supply power to their respective sides of the field. From this point, either 3- or 4-wire secondary distribution is used. On larger installations, a transformer should be mounted on each tower.

Fusing

It is sometimes desirable to fuse each floodlight. There are two methods by which this may be done. One by locating a fuse panel in a steel cabinet at the top of the tower; the other to connect a weatherproof pigtail socket in one lead of the floodlight and screw a plug type fuse into the socket.

2—THE FLOODLIGHT

Selection of the floodlight unit is of

major importance. The obtained results will depend largely upon a careful check of the relative merits of the unit. The items to consider in selecting the floodlight are:

a. Construction

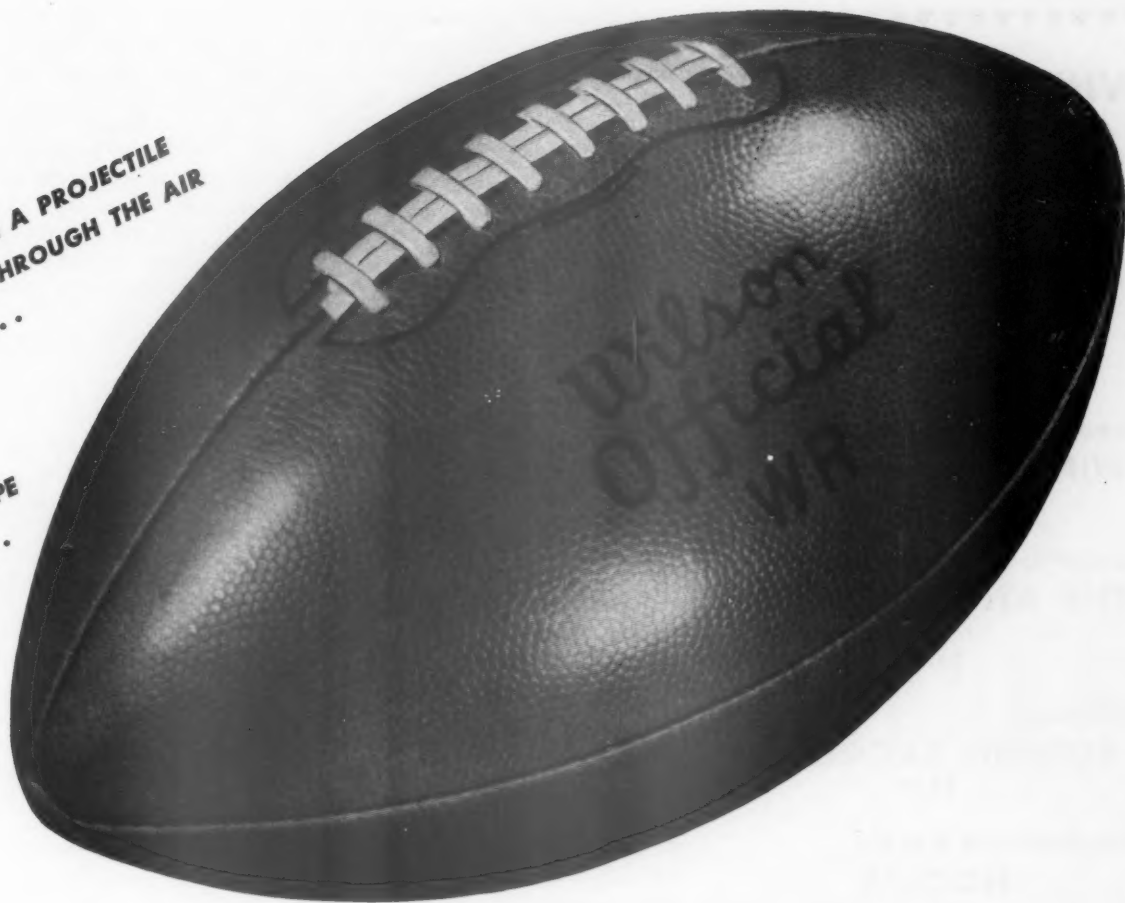
Consideration must be given to the mechanical features of the unit. It must be rugged, properly designed and made of durable materials. The diameter of the reflector, cover glass, construction and mounting methods should be reviewed. With a closed type unit the cover glass should be so fitted to the reflector as to make a dust-tight and weatherproof unit. The floodlight mounting and wiring should be simplified for ease of installation.

b. Photometric Data

In reviewing photometric data one should not confuse beam lumens and beam

IT'S SHAPED LIKE A PROJECTILE
TO SPIRAL THROUGH THE AIR
ON A PASS . . .

HAS THE NEW-TYPE
TRIPLE LINING . . .



. . . THE NEW LEATHER
GIVES AMAZING FINGER HOLD . . .
. . . NO SKIDDING . . . IT'S GREAT!!

WHAT IS IT THAT MAKES THIS NEW WILSON FOOTBALL THE NEWS OF THE SEASON?

● First, a new and amazing leather with a marvelous *feel* in the hand. The fingers of the "passer" get perfect traction—like a new tire on a good pavement. The grip is *velvety*, yet it's *firm*. No slipping. No uncertainty. This means greater confidence—accuracy—distance in forward passing. It means better centering and ball handling.

Note the improved streamlined "projectile" shape. It's a decided advantage. Easier to hold. Knifes through the air with less deviation. The thin, flush, eight-hole lacing aids gripping without throwing the ball out of balance. Craftsmanship throughout is the finest, including the new-type Triple Lining.

Yes, sir! This new Wilson WR Official Football is *News!* The last word in design and playability—and exactly what the great university and professional teams have wanted for years. See it. Handle it. Get the new and amazing *feel*. You'll want no other ball. See your Wilson dealer or get in touch with us. Wilson Sporting Goods Co., Chicago, New York and other leading cities.

Wilson
FOOTBALL EQUIPMENT

IT'S WILSON TODAY IN SPORTS EQUIPMENT

WHITTLESEY HOUSE SPORTS SERIES

Allen's

BETTER BASKETBALL

Technique, Tactics and Tales

\$4.00

Jones and Brown's

SWINGING INTO GOLF

\$2.00

Lamar's

THE ATHLETIC PLANT

Layout, Equipment and Care

\$3.00

Skillman's

SQUASH RACQUETS

\$2.50

Vaughan and York's

HOCKEY

For Spectator, Coach and Player

\$3.50

Vinson's

Primer of

FIGURE SKATING

\$2.75

Bierman's

WINNING FOOTBALL

Psychology, Strategy and Technique

\$2.50

Crisler and Wieman's

PRACTICAL FOOTBALL

\$3.00

Little's

HOW TO WATCH

FOOTBALL

The Spectator's Guide

\$2.50

In Preparation

Crampton's

TRAINING FOR CHAMPIONSHIP ATHLETICS

Send for copies on approval

Whittlesey House

330 W. 42nd St.

New York

efficiencies with overall lumens and overall efficiencies. The essential part of the illumination data for a projector of this nature is the light flux in the beam and its utilization in the playing area.

c. Maintenance

The unit must be so fabricated to insure the best possible performance over an extended period of time. It must be constructed to give the best possible protection against weather to its reflecting surface.

d. General

The unit should be designed for operation with a 1500-watt PS-52 general service lamp operated in a base-up position. Base-up position gives the best maintained efficiency for the lamp itself. In case of a closed type unit it should be of sufficient size to provide cooling entirely by radiation.

3—CLASS OF LIGHTING

For convenience of the lighting industry certain classifications have been set up based on the KW installed. These classifications are as shown in the following table.

Class	No. of 1500-Watt Floodlights		KW. at 10 per cent Over-Voltage		Mounting Height	
	Min.	Good Practice	Min.	Good Practice	Min.	Good Practice
Major League	500	600	870	1044	100'	120'
AA	250	400	435	696	90'	100'
A&B	160	250	278	435	80'	90'
C&D	120	160	209	278	70'	80'
Semi-Pro.&Municipal	100	120	174	209	60'	70'

Note: The above wattage is based upon operation of lamps at 10 per cent over-voltage which is recommended in order to obtain 35 per cent increase in light output.

a. Resultant Illumination

The resultant illumination depends upon all of the other essential factors given in this report. Each one has an effect on the result and for that reason resultant footcandles cannot be included in the above table. It is just as well because high intensities on the ground do not necessarily mean good lighting for baseball; it is essential to have an even distribution of light above the playing

field through which fly balls travel. Should the intensity of the area vary too much the ball will appear to be "jumping" as it passes through the light and dark areas. Therefore, the motive is not so much for a high intensity at ground where footcandle readings might be taken, but for an even distribution of light.

To produce the desired results, medium spread floodlights should be used,—or a combination of narrow beam and wide beam units in order that even distribution of light as well as high intensity may be obtained.

COST OF THE LIGHTING INSTALLATION

The cost of baseball field lighting varies over the country. However, for comparative estimates, it is estimated that an installation of 100 open floodlights on wood towers, as described in this report, would cost approximately \$4,800.00 installed complete with all equipment, including approximately \$750.00 for labor. The average ground intensity received from such an installation would be approximately 32 footcandles on the infield and

12 to 15 footcandles on the outfield.

GOOD LIGHTING PAYS

Good baseball lighting pays. This is evidenced by the ever-increasing number of installations.

In planning an installation you cannot afford to overlook a single one of the contributing factors essential to good lighting, for they are all important in the part they play in making good night baseball possible.

Suggestions for Increasing Interest in Track and Field Athletics

(Continued from page 14)

interesting news material relating to any high school track and field program. The coach should use every medium and agency at his command to promote interest in the sport among the student body and the public at large. The ideals of this clean amateur sport are far more worthy of dissemination than some of the material which now takes its place. Every coach can utilize such interest getters as well kept bulletin boards, display materials regarding schedules and records, assembly announcements, exhibitions, and

copy in school and local papers. This may be done in a manner which does not substitute the true values of the sport for the shallow aspects of cheap publicity. With interest on the part of the students, athletes, and the general public, necessary for success, it is imperative that the coach use any and all legitimate means to inspire this interest. Does anyone believe that such sports as football or professional wrestling, popular in the public fancy, are carried on through their own spontaneously created interest?



FOR ALL OUTDOORS

SCHOOL AND COLLEGE athletic fields and playgrounds will be the site of great activity again this summer. Outdoor games will be the order of the day . . . prepare for these coming events by ordering Reach equipment.

Your Reach representative is ready to show you a complete stock of Basketballs, Volley Balls, Soccer Balls, and some of the most durable playground balls you've ever seen . . . or ever used.

Too, Last-Bilt balls will be in demand for outdoor activity . . . their perfect playing qualities have given them the vote of popularity in play this year.

Ask your Reach representative to show you the Reach Sta-True Last-Bilt Basketballs, Volley Balls, Soccer Balls . . . you'll want to put them in action out of doors this year.



A.J. REACH, WRIGHT & DITSON

ATHLETIC EQUIPMENT



IT WON'T SHOOT BASKETS

DESPITE some of the things you read about gym finishes, you know you won't win basketball games merely because you have used this or that brand. And all we claim for Dolcorock, Dolge high surface finish, is (1) that it makes floors look handsome; (2) permits quick starts and stops with a minimum of slipping; (3) is impervious to rubber burns; (4) is durable.

Dolcorock won't make up for poor physical material; it won't do the coaching job; it won't shoot baskets. But it will make a good floor better. Application is so easy it may be entrusted to inexperienced help.

Dolcorock has been used by colleges and schools boasting championship teams, and by schools with poor teams. Consensus: Dolcorock makes the game more enjoyable for everybody. For further details, send for the free Dolge Floor Maintenance Manual, edition J-5.

DOLCOROCK
The C. B. DOLGE CO., Westport, Conn.

It was the purpose of this presentation to discuss in a general way some of the aspects of track coaching in regard to matters of organization and administration. The writer will be glad to supply any added details upon request. These suggestions were developed over a considerable period of devotion to the sport as a participant, a coach, and a student. If they make any contribution, it is but small recompense for the ideas and inspiration other coaches have so generously passed along to me.

National Interscholastic Records

100 YARDS DASH—9.4s.	SCHOOL.
Jesse Owens	East Tech, Cleveland...
220 YARDS DASH (straightaway)—20.7s.	
Jesse Owens	East Tech, Cleveland...

PLAN FOR TRACK PRACTICE

.....
Last Name First Name Events Week
General Aims and Objectives

1. Faults to correct:
2. Habits, knowledge, or skills to be acquired:
3. Mark to be achieved:

Monday

General Description:
Specific Activities:
1.
2.
3.
4.

Tuesday

General Description:
Specific Activities:
1.
2.
3.
4.

Wednesday

General Description:
Specific Activities:
1.
2.
3.
4.

Thursday

General Description:
Specific Activities:
1.
2.
3.
4.

Friday

General Description:
Specific Activities:
1.
2.
3.
4.

Approved by Capt.....

Breaking Up the Delayed Double Steal

(Continued from page 6)

in itself, sometimes leads to success of one-half of the play. The situation that I wish to describe is one in which there are men on first and third. Please understand that the score, the players themselves, the inning and many other things would somehow affect the method in which some coaches would play this situation, both offensively and defensively.

Merely for illustration's sake, let us assume that the score is close, the hitter an average or weak batter, two outs and a late inning of the game, both runners of average speed, the catcher a fairly good thrower, the second and shortstop good throwers and the run might mean the ball game. My opinion on this situation varies a little from that of many other baseball men.

I believe, first of all, that only one man should cover second base and the type of batter and the ball being pitched determine who this shall be. I think that my reason for this is mainly based on the possibility that with both second and short covering, the first baseman being kept close to first, and the possibility that even the third baseman might be leaning toward third opens up the infield lanes to any kind of a dribbling hit-and-run ball. In fact, some big league teams will hit and run with just such a situation existing. Therefore, unless a pitch-out is called, and I do not think one should be, except in rare cases, I let my shortstop cover with a fast ball being pitched to a right-handed batter, my second baseman plays in as in a sacrifice, and then backs up the play and

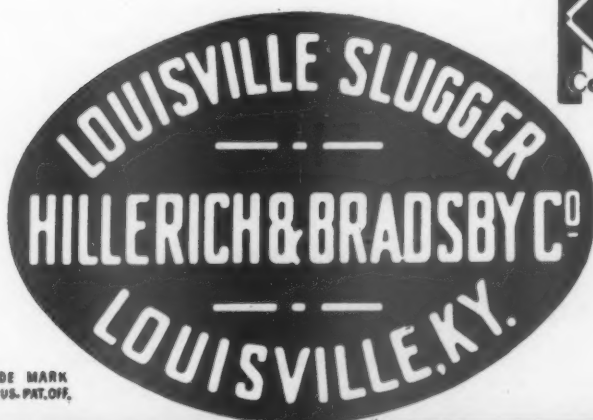
Batter Up!

Help your team
to march to a cham-
pionship this year by
providing them with
championship equipment.

...

Genuine autographed Louisville Slugger
Bats have been used by Major League
batting champions since 1884. Give
your players confidence by using the
Bat of the Champions.

Write to Dept. A for our 1939 Catalog



TRADE MARK
REG. U.S. PAT. OFF.



HILLERICH & BRADSBY CO., INC., LOUISVILLE, KY.,

PLAY and PROFIT with LIGHT...

CROWDS ROAR APPROVAL!

Increased attendance at floodlighted night games creates better team support and, because gate receipts are increased, sports are placed on a self-sustaining basis. Crowds acclaim floodlighting because it allows them to attend more games, and they actually can see the fast-moving plays better.

Westinghouse floodlights provide ideal illumination for all types of sports including football, baseball, softball, tennis and swimming. Call your local Westinghouse Distributor, or address Westinghouse Electric & Mfg. Co., Lighting Division, Cleveland, Ohio.

Westinghouse Lighting Equipment



SECOND ANNUAL COACHING SCHOOL

Sponsored by
Georgia Athletic Coaches
Association

August 21-25, inclusive
ATLANTA, GEORGIA

FOOTBALL

Meagher Auburn
Alexander Georgia Tech

BASKETBALL

Allen Kansas
Mundorff Georgia Tech

TRACK

Griffin Georgia Tech
Towns University of Georgia

SCOUTING TRAINING

Motion Pictures All-Star Football
Lectures and Basketball
Demonstrations Games

Teams coached during clinic

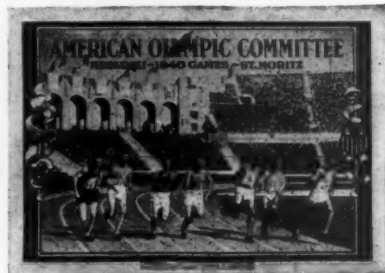
Tuition \$10.00

For further information write

DWIGHT KEITH

751 Park Drive, N. E.
Atlanta, Georgia

Be an Olympic BOOSTER!



FLASH! . . . Make the **FIRST EDITION!** Be the first to use the beautiful new steel-engraved Olympic Stamps. Embellish your letterheads and support the American team in the Olympic Games at Helsinki, Finland, next year. Sheets of forty, \$1.00. Printed in four different colors: purple, green, blue and red.

USE THE COUPON BELOW:

AMERICAN OLYMPIC COMMITTEE
11 S. LA SALLE ST., CHICAGO, ILL.

Please send me _____ sheets of Olympic
Stamps for which I enclose \$ _____

Name _____

Street _____

City _____ State _____

can offer advice to the shortstop if the runner on third leaves. The order is reversed if the ball is a curve ball with a right-handed batter, and the entire set is vice versa with a left-handed batter. The pitcher has kept the man on first close to the base, and has wasted little time in delivering to home. If possible, his pitch should be low in order to force the ball to be hit into the ground for a double play. He might also fake a throw to third and quickly swing around and throw to first. However, he must be constantly thinking of the possibility of the man on first faking a steal, or feigning to slip and fall in order to get the pitcher to turn and throw, which would find the man on third scoring on the throw. His move should be first to step out of the box with his right foot, without breaking the move with his left, and then to solve the situation as he thinks best. He then might fake to first, or just step back and watch for the best base to pick one of the runners off.

After the ball is in the catcher's hands, the success or failure of the play is mostly in his power. He has four things that he can do, and again I say the situation and players determine, to a great extent, what he will do. 1. He can throw directly to second. 2. He can throw directly to third. 3. He can throw high to the pitcher. 4. He can fake a throw to second, keep the ball and look for the runner at third.

The hardest play in baseball, in my opinion, is the play that the catcher has to make in the first two cases. The play is hard because the catcher must look to third while taking his step to throw to second and if the runner is moving off third or is too far off, he must check his throw and throw to third instead. As a result, he should try looking at third as he steps out to throw to second and he should learn to continue his throws to either base, merely by letting his left foot fall in the direction of the throw. He then removes his mask and steps in front of the plate and waits for the return throw. After the catcher has made his throw to second, the responsibility is now with the receiver. Naturally, the throw is coming through, if the runner on third has not shown a move toward home, and the receiver now, and I insist that *he alone*, determines whether to make the play at home or at second, or possibly at third.

I tell my man covering up that he should play in a little closer than usual, should start after the catcher receives or after the ball passes the batter, and should run to a point directly in front of the base. If, while waiting for the ball, usually in flight, the man on third starts in, the infielder should continue in to cut off the throw and should make his throw either to home or to third, or should start right at the man, arm up, if the runner is caught between the bases. Most assuredly he must use split vision, and really he should

be turned a little toward third while receiving the throw. However, if the man on third only fakes, or if he does not start, the infielder should receive the throw and make the play at second. If the runner on second stops when he sees that he is caught, the infielder, arm up, drives him back to first, watching and listening for the runner on third to start home, which then would alter the infielder's course. He then, arm up with the ball, should go straight at the man on third, driving that man back to third and trying to pick one of the two off the bases. The third baseman's play is quite simple comparatively. After the ball has passed the batter, always fearful of a squeeze and being up close and watching the intentions of the batter, the third baseman should go directly to his base and look for a throw from any of the other players, who may have possession of the ball; he should give the "Go" sign when this runner on third starts for home. The second baseman, as explained, backs up the play, when he is not to receive the throw, and gets into whatever run-up that may develop. I have experimented and found that the runner at third will come into sight soon enough, if he starts while the ball is in flight to second. Responsibility should rest with one at a time if possible.

The outfielder should back up all bases after the ball has gone past the batter.

The Squeeze Play

There are two commonly used types of squeezing a man in from third, or occasionally running and bunting him in from second. The safety squeeze is an attempt made to bring in the runner from third after the ball is bunted, while the suicide squeeze is a more daring attempt to score him. The former is safer but the man does not always succeed in scoring, while in the second case the runner usually scores if the ball is bunted safely. This does not require as well placed a bunt as in the first case.

The safety squeeze finds the baserunner with as much lead as he can safely hold, leading a few more feet off with the pitcher's throw, but remaining in foul territory, leaning toward home on the throw and continuing in when he sees the ball bunted or going safely to the ground. If the ball is missed, or popped up, the runner should not be caught off third. In fact, the pitcher has a hard time stopping this type of squeeze because neither batter nor runner really start the play until after the ball leaves the pitcher's hand, and the pitcher's only chance of stopping a squeeze is to throw at a right-handed batter's head, or away from a left-handed batter in order to prevent the bunt.

In the case of the suicide squeeze, the technique is different. The runner remains closer to the base but as the pitcher's arm starts down, he actually starts to



The Worthington Park Ranger, with cutting units raised, goes anywhere under its own power from one mowing area to another, crossing driveways and walks and rough ground without injury to curbs or machinery. Illustration shows sickle bar which is available.

WORTHINGTON PARK RANGERS

keep turf of playing fields and campus lawns in perfect shape—at less cost

The Worthington Park Ranger, designed by specialists in mowing machinery to meet the requirements of schools and colleges for one compact mowing and maintenance unit, simplifies the grounds superintendent's varied problems of upkeep and satisfies your budget at the same time. Its Chrysler 6-cylinder industrial motor was selected only after thorough tests had proved its efficiency and economy. Sturdy construction throughout assures you of long years of trouble-free service.

One man with a Park Ranger can cut 30 to 40 acres a day. With the cutting units detached (a quick and simple operation) the Park Ranger becomes a general utility tractor for hauling rollers for running tracks and tennis courts, dump carts for leaf removal, cinders, gravel, etc.; for attachment of rotary brush for clearing skating rinks, walks and driveways of snow and debris (an easily attached snowplow is also available); sprayers for trees and shrubbery or other equipment for the upkeep of grounds and playing fields.

Yale, Northwestern, Philips Exeter Academy and many other prominent schools and colleges, as well as thousands of golf courses, private estates, parks and municipal recreational areas all over the world find that Worthington equipment gives them better turf and pays for itself quickly in time, labor and money saved.

Tear out this coupon and mail it today for Worthington's School and College Catalogue showing how you, too, can have better turf at less cost.

Worthington
Mower Company

STROUDSBURG • PENNSYLVANIA
Sales Agencies: All Principal Cities

WORTHINGTON MOWER CO.

Stroudsburg, Pa., Dept. AJ/My

Please send catalogue on your equipment at no obligation.

NAME _____

ADDRESS _____

CITY _____

STATE _____



BERNIE BIERMAN
Minnesota—Football



L. R. (DUTCH)
MEYER
Texas Christian—
Football



HENRY FRNKA
Vanderbilt—Football



BLAIR GULLION
Cornell—Basketball

THE PRACTICAL COACHING SCHOOL OF 1939 WITH AN OUTSTANDING COACHING STAFF BIERMAN, MEYER, FRNKA, GULLION

at

Vanderbilt University, Nashville, Tennessee
August 14-19

The Second Annual Coaching School conducted by the
Tennessee High School Coaches Association

AN OUTSTANDING COACHING STAFF

A great opportunity to see and hear the presentation of football and basketball by an outstanding staff of coaches. Bernie Bierman; the nationally known winner of southern and Big Ten championships.

"Dutch" Meyer; the winner of championships and bowl games. His teams won the Sugar Bowl 1936, the Cotton Bowl 1937, and the Sugar Bowl 1939.

Henry Frnka; a most capable assistant to Ray Morrison since he has been at Vanderbilt. A builder of high school championship teams.

Blair Gullion; winner of the Indiana Intercollegiate championship, the South-eastern championship and a noted author on the game of basketball.

FOUR POPULAR SYSTEMS OF FOOTBALL

This school will fit into your system of attack by the presentation of four popular systems of football.

Bierman will present the *single wing, unbalanced line*, with variations.

Meyer will present the *double wing, unbalanced line*.

The *short punt* will be presented by Meyer and Frnka.

The *single wing with the balanced line* as used at Vanderbilt will be presented by Frnka.

PRACTICAL BASKETBALL

Blair Gullion is noted for his ability as a teacher of basketball in such a way that it becomes practical to both the High School and University coach.

DEMONSTRATIONS AND ALL-STAR GAME

Practical demonstrations will be held throughout the school in both football and basketball.

Two all-star high school football squads will be coached throughout the school by the coaching staff in preparation for an all-star game on Friday night, which will serve as an exhibition of the systems presented during the week of the school.

Take a Vacation in the Heart of the Tennessee Valley

Enjoy a week's visit to Nashville, the Athens of the South. While here and en route visit the scenic wonders of the blue grass hills of Tennessee, the Great Smoky Mountain National Park, the Tennessee River dams, the Parthenon.

TUITION

Tennessee High School Coaches (Non Members of T.H.S.C.A.)	\$15.00
All other coaches	25.00
Rooms in Kinsam Hall at Vanderbilt, for the week	\$2.75
Meals at reasonable rate.	

J. H. SWANN

Central High School, Murfreesboro, Tennessee

Please send me additional information on the coaching school at Vanderbilt ☐

Please make reservations for me at the coaching school at Vanderbilt ☐

NAME

ADDRESS

CITY..... STATE.....

steal home. The batter delays his intention of bunting as late as possible but he is responsible for the bunt regardless of the type of throw that it is. His bunt does not have to be a good bunt, merely a safe one; usually a poor or a hard bunt will score the man who already is halfway down. If the ball is missed and another man is on the base, the runner, coming in to home, should stop and allow the other runner to advance as far as possible.

Attitude of the Baseball Coach Toward Umpires

By James K. Gaynor

THROUGHOUT a century of baseball, the umpire has remained the much abused, but very necessary, element of the game. It has come to be considered perfectly legitimate in professional ball for the players and managers to abuse the official in any manner that they see fit so long as they can do so without fines or banishment from the game. However, the college and high school coaches, as well as those in charge of the American Legion junior teams, are supposed to be doing their job partly to teach better citizenship, and to make better men of the boys under their charge, through the medium of sportsmanship and fair play.

What attitude should college and high school coaches take toward umpires? It is their admitted duty, and usually their desire, to teach sportsmanship to the players. But the old-fashioned idea that all the coach has to do is to say, "Boys, lay off the umpire," is outmoded, and the well-meaning coach that tells his players, "If there's any kicking to be done at the umpire, I'll do it," is very definitely on the wrong track.

Attitude of Players

There is one principle that the coach should keep in mind. In ninety-nine out of every hundred cases the attitude of the players toward the umpire will simply reflect the coach's attitude. If the coach is one of those mild-mannered individuals that realizes that the umpire is doing his best and will be more efficient if left alone, the players will seldom give the officials in charge of the game any trouble. On the other hand, if the coach is a fire-eater who believes in standing up for his rights and includes in his team standing the number of games that the umpires have "beaten him out of" along with his won and lost columns, it is only logical to assume that the players will have a poor attitude toward umpires.

I do not take the stand that umpires are infallible, nor that umpires do not occasionally lose a ball game through palpable mistakes, usually brought on because

LeROY N. MILLS MEMORIAL KICKING SCHOOL

June 26, 27 and 28

MAMARONECK, N. Y.

Conducted by his former pupils

The facilities of the school will be made available free to high school boys and will be limited to one boy from a high school, this boy to be determined by the football coach of his respective school.

The only expense attached to attendance will be board and room which we estimate to be about twelve dollars.

For further particulars write:

EDWARD J. STOREY

HIGH SCHOOL

MAMARONECK, N. Y.

of ignorance or failure to give their best efforts. I have seen many college and high school games in which the umpires made a farce of the contest because they were downright incompetent. Who is at fault for these unfortunate situations? Aren't the coaches themselves pretty much to blame? Many coaches, in a well-meaning gesture of sportsmanship, will tell their opponents, "Anyone you select to umpire the game will be satisfactory to me." Others forget about umpires until just before game time and then find a former semi-pro player or the town barber to umpire the game. They think that these men, picked at random, ought to be all right because they have played baseball, or because they can "talk a good game." In many cases it is these men picked at random that lose ball games or cause embarrassing situations through inefficiency. The answer, then, seems to be care in the selection of the umpires. And remember, no athletic contest ever was any better than the men who officiated it.

Number of Umpires

Another fallacy among college and high school coaches seems to be in their opinion that quantity is a substitute for quality. The coaches would rather employ two mediocre umpires at small prices than one good umpire at a higher price. Others want to put as many umpires on the field as they can (because they think it looks good) regardless of the umpires' abilities. The important thing in regard to the number of umpires, then, seems to be that it is better to get one good umpire than to have two or three poor ones. If a school can afford to employ two good umpires, all well and good; there is no question about it but that two men can umpire a ball game better than one. But if a school can not afford two umpires, the game should be put into the hands of one good umpire and there will be better officiating in the long run. It seems unnecessary to take into account the fact that some umpires refuse to work alone. Space will not permit a consideration of individual cases of laziness.

In final summarization, it should be remembered that Rule 59 prohibits clubs from changing umpires during a game. Once the coaches have put the game into the hands of an umpire, the only way to get rid of him during that game would be to disable him in some manner, and such a practice can hardly be recommended. Therefore, it seems that the coaches' duty toward the game, and toward their schools in upholding the principles of sportsmanship, demands that they take care to select GOOD umpires, and then stand behind them to the limit after having selected them. After all, the umpires are only employed for one game at a time, and a man need not be used again if he proves below standard.

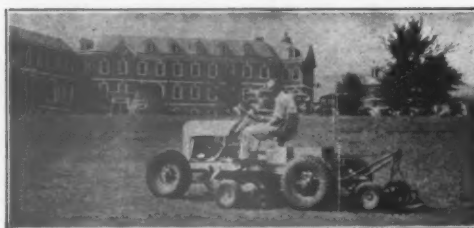
Firm Tracks — Fast Courts — Fine Fields — Beautiful Lawns Maintained by **TORO Equipment**

In schools all over the country you will find Toros doing a good job, backed by the enthusiasm of the men who use the equipment and the men who are interested in the result of the work.



A Toro Power Roller Keeps Tennis Courts in Fine Shape for
**J. D. McCarraher, Athletic Director,
University School,
Shaker Heights, Ohio**

A Parkmaster Keeps Lawns Beautiful



State Teachers College
New Britain,
Connecticut.
**Harry Vile,
Supt.**

Hugo Bezdek, Former Famous
Football Coach of
Pennsylvania State College
Uses this Park Special to Keep his
Lawn well Groomed



**TRACTORS —
— POWER ROLLERS
GANG MOWERS —
— POWER MOWERS**

Send for Our Interesting 1939 Catalog

TORO MANUFACTURING CORPORATION
MINNEAPOLIS MINNESOTA

ATHLETIC HEADQUARTERS

IN CHICAGO

Occupying practically an entire square block, rising 25 stories high, and providing 1700 guestrooms, Hotel Sherman is the most accessible and conveniently located hotel in Chicago.



1700 ROOMS
1700 BATHS
from \$2⁵⁰

- Ideal headquarters for your teams, whenever they come to Chicago.
- Exceptionally comfortable beds with extra long sizes specially for big men.
- Special "training menus" gladly arranged.
- Convenient to all transportation and places of amusement.
- Home of the College Inn, featuring, always, a nationally famous orchestra.

CLARK • LAKE • RANDOLPH AND LA SALLE STREETS

C • H • I • C • A • G • O

A Clinic by Mail

THE following questions have been received at the office of this publication. The answers as given by Mr. Fonseca, by high school and college coaches will be designated as follows: Answers by Mr. Fonseca designated L.F.; by college coaches, C.C.; by high school coaches, H.S.C.

Question: How should a two-hour practice period in baseball be divided? Give percentage of time that should be devoted to batting, fielding, baserunning, etc.

L.F.—Twenty minutes for warming up; sixty minutes for batting practice; twenty minutes for baserunning; twenty minutes for fielding.

C.C.—Read answer to this question in Mr. Kobs' article, page 5 of this issue.

H.S.C.—Ninety minutes batting and bunting. Bunt two, hit two. Thirty minutes fielding.

Question: Qualifications and training of high school pitchers.

C.C.—A pitcher should have a good arm, poise, courage and be a good fielder. He should be taught a free, easy movement with rhythm. He should keep his eyes on the target at all times.

H.S.C.—A pitcher should be a big boy, if possible. He should have a good arm, poise, confidence, a fighting heart, and not be too cocky. He should be taught the proper position on the rubber and the correct way to hold the ball; he should keep his eye on the home plate.

Note: Read Mr. Kobs' article, page 5 this issue, and "Pitching Fundamentals for the Schoolboy," by J. E. Gargan, April and May issues, 1938, Athletic Journal.

Question: A pitcher is standing in the box and there is a man on third. The pitcher has stretched his arm out and is looking toward third. The runner begins to run home a little too early; the pitcher steps out of the box about a foot and throws the ball home. The batter, who is in the batter's box, hits the ball and the runner scores. What is the correct ruling?

L.F.—It is up to the umpire to determine whether or not a pitcher has his foot on the pitching rubber when he delivers the ball. If he steps off the rubber in the correct manner and then delivers the ball, the batter is not allowed to hit it. If he does, the batter is interfering.

Question: Where the material is limited, what is the best way to cure an infielder of being afraid of a ground ball?

L.F.—Make the infielder play the ball and do not allow the ball to play him. He should keep his arms hanging as low as possible. He should always come in on the ball and not wait until the ball reaches

A NEW CROUSE-HINDS FLOODLIGHT FOR NIGHT SPORTS Type MUA with Hinged Door

Crouse-Hinds type MUA Alupalux open floodlights have proven highly satisfactory in a large number of athletic field installations. This same effective floodlight can now be furnished with a substantial cast aluminum hinged door, having a plain, light-weight, Pyrex lens. An asbestos gasket is held firmly against the bead of the reflector by four door clamps, making the floodlight weatherproof.

These units bring the advantages of a closed floodlight installation to the Athletic Department operating on a limited budget.

These new enclosing doors can be easily attached to existing installations of open floodlights and will soon pay for themselves in savings in lamp breakage from driving rain or snow, and the elimination of practically all cleaning expense.

Literature on sports lighting of any type will be sent on request.

CROUSE-HINDS COMPANY
SYRACUSE, N. Y., U. S. A.



CH 659



N. Y. State Coaches' Association SUMMER COACHING SCHOOL

at Colgate University, Hamilton, N. Y.

June 26 to July 1, 1939

COURSES IN—interscholastic football; six-man football; basketball; baseball; swimming; wrestling; tennis; injuries; equipment and administration.

STAFF of outstanding college and high school coaches.

Tuition \$5.00

Non-Members \$10.00

Board and Room \$11.25

Registrar—Mrs. Doris T. Johnson, Hamilton, N. Y.

Director—William T. Graf, Watertown, N. Y.



How do you HELP PREVENT the spread of *Athlete's Foot?*

THE responsibility of doing SOMETHING about it is clear cut—particularly since practical means tending to effective prevention are available.

WESTOCHLOR is an antiseptic and a disinfectant that, if used as directed, will destroy the "Athlete's Foot" fungus. It should be used to disinfect washrooms and locker room floors, dressing rooms, runways and diving boards. WESTOCHLOR will also maintain your swimming pool in sanitary condition.

It is important that a West Rubber Foot Tray filled with a solution of WESTOCHLOR be placed in the entrance to the shower room to help prevent the spread of this ringworm infection. Schools throughout the country have availed themselves of this economical protection.

- There is a West office near you (see your local phone book)—or we will gladly send you by mail a booklet of technical counsel and WESTOCHLOR information.

WESTOCHLOR

The Aid for the Prevention of
ATHLETE'S FOOT



The Coupon is for Convenience

WEST DISINFECTING CO.
Dept. AJ, 42-16 Barn St.
Long Island City, N. Y.

Please send me, without obligation, your booklet on Westochlor.

Name..... Title.....

School or Organization.....

Street & No.....

City & State.....

him. When the ball goes in his direction, he should go after it.

C.C.—If your field is rough or too hard and causes dangerous bounces, your first move is to rectify that condition. The next move that may build up this player's confidence is to take much care when hitting grounders to him. When hitting directly at him, make the ball take easy bounces. When hitting to his left or right, you can try the creepers or a more difficult grounder. Some players have trouble with those coming directly at them. Put this player in his regular position while you are having batting practice at the home plate. Hit an easy type of grounders to him and let him throw them to first. When the hitters smack hard ones at him, he can field them also. This system will give him many chances to field his position, easy ones coming from you and harder ones from the hitters. It is as near game conditions as you can make it and he is not under the pressure of game conditions.

H.S.C.—Tell the boy that a fincher never makes a good ball player. Build up his confidence. Hit slow balls to him at first, then hit faster balls and encourage him as he improves.

Question: Method and procedure of warming up pitchers.

L.F.—The warming up of pitchers depends on weather conditions. In warm weather it takes less time, but in the spring it takes longer. It requires from five to ten minutes in the warm weather and from fifteen to twenty minutes in the spring.

C.C.—Set up the infield, hitting grounders to each in turn. Have the first baseman throw to the catcher who in turn throws to the baseman who fielded the grounder. He then throws to the catcher and the batter hits a grounder to the next fielder.

Question: Are hitters born or developed? If developed, what are some of the successful methods used?

C.C.—Some boys have better co-ordination for hitting but all can be improved with training in proper fundamentals and actual practice. Stress fundamentals of stance, short stride. Have the players keep their eyes on the ball. Give the players lots of practice and build up their confidence.

H.S.C.—Players with good qualifications can be developed. It takes patience and long hours. Emphasize the proper stance and teach the players a short stride.

Question: What batting order would you suggest?

L.F.—The lead-off man should be fast on bases and a good judge of balls, and strikes. The second batter should be a good bunter and a hit-and-run man. The third, fourth and fifth batsmen should

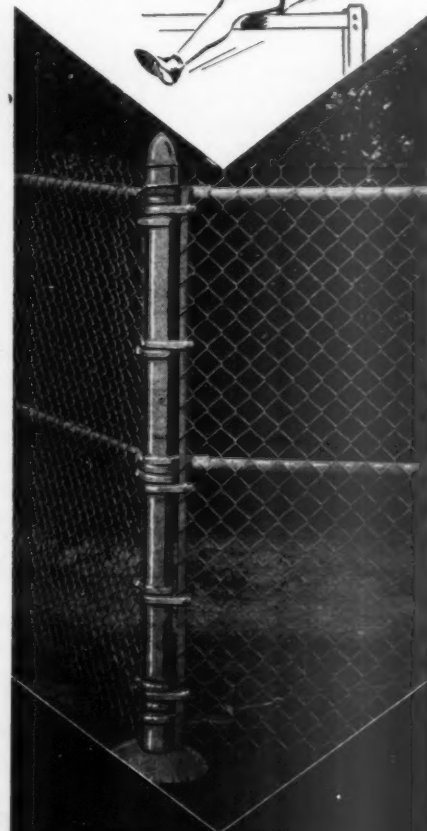
A FENCE WITH DECATHLON QUALITIES!

● In all the major "events," Continental Chain Link Fence turns in an exceptional performance. It's the modern protection for athletic fields, playgrounds, schools, etc. It's the only Chain Link Fence made with fabric of special KONIK steel — for greater tensile strength and rust resistance clear through. It has heavier posts and fittings, stronger bracing, more easily operated gates and locking devices, improved pivot-type hinges. Write today for file-size manual "Planned Protection."

CONTINENTAL STEEL CORP.

Kokomo, Indiana

Plants at Canton, Kokomo, and Indianapolis



CONTINENTAL
Chain Link
FENCE

have the power. Condense the power, particularly in distance hitters, into this part of the line-up. The sixth man can be a somewhat weaker hitter and a good hit-and-run man. Place the seventh and eighth according to batting ability and the ninth is usually reserved for the pitcher.

Question: I have a catcher who blows up and blows the pitcher with him. What would you suggest?

L.F.—The catcher is known as the field general on the ball club. We find, in major league baseball play, that the catcher's position is just about the most important on the team. He signals the pitcher for every pitch during the game and with a lot of hustle and pepper, he can liven up the entire infield. The catcher must have self-control at all times in order to keep the rest of the team on its toes and playing a steady game. If the catcher does not have these qualifications, a team cannot play a winning brand of baseball.

C.C.—Give him lots of scrimmage and keep patting him on the back. Emphasize the fact that a catcher should at all times encourage not only the pitcher but the entire team.

H.S.C.—Stop the game, walk out smiling. That will cool a "hot head" more quickly than anything I know.

Question: I have a good 170-pound first baseman with a good swing at the ball, but he thinks that he cannot hit. What would you advise?

L.F.—Pay strict attention to the length of his stride; make sure that he holds his ground at the plate by getting the weight on the rear foot, thus preventing him from pulling away from the pitch. Most of the good hitters in professional baseball take a short stride and step almost into a direct line toward the pitcher with the forward foot.

C.C.—Do not criticize him but give him a lot of hitting practice. Hitting is 90 per cent determination and confidence. Build up his confidence.

H.S.C.—Try having him hit medium fast balls. Try a lighter bat. Change his stance. Work with him individually and build up his confidence.

Question: We have just constructed a back stop 55 feet wide and 25 feet high. I am collecting data on back stops and batting cages for special locations. How high and wide should a back stop be, if located at regulation distance from the home plate, to be capable of stopping 90 per cent of the foul tips? I will appreciate replies from readers.—H. J. DeGroat, Springfield College, Springfield, Mass.

Note: The general questions and those on administration will be answered in the June issue. Other questions received on or before May 15th will also be included in that issue.

for MAY, 1939

First Annual DAYTONA BEACH COACHING SCHOOL

August 21-26, Inclusive

DAYTONA BEACH, FLORIDA

"The Outstanding Coaching School in the South"

Six Days of Intensive Instruction in

Football and Basketball

BIERMAN

University of Minnesota
Western Conference
Champions
Single Wing with
Variations

THOMAS

University of Alabama
Rose Bowl Contenders
1934-37
Notre Dame and Short Punt

LEAHY

Boston College
Developed Fordham's
Famous "Seven Blocks
of Granite"
Line Play

HINKLE

Butler University
Natural Basketball
Butler Players Will Demonstrate

HIGGINS

University of Tampa
Scouting

Lectures—Demonstrations—Motion Pictures—Individual Problems

Tuition \$15.00

Rooms and Meals at Reasonable Rates

For Further Information Write

George R. Trogdon
Landon High School
Jacksonville, Florida

L. L. McLucas
Seminole High School
Sanford, Florida

The School No Progressive Coach Should Miss



BASEBALL MANUAL

Fundamentals fully illustrated. An excellent book for classroom work or for squad discussions. From the Sports Analysis Group of the Modern Recreation Series of the Chicago Park District.

Price 35 cents

Address V. M. Hernlund, Administration Building
Washington Park, Chicago

The Tetra Bandage

ELASTIC WITHOUT RUBBER

350 NORTH CLARK STREET

CHICAGO, ILLINOIS

Through neglect of an injury the player was lost.
Through the loss of the player the game was lost.

DISREGARD of a minor injury may lead to a major infection or disability, and the player who fails to take simple precautionary measures not only courts disaster for himself, but jeopardizes the interests of his team.



The baseball player is particularly vulnerable to—

Bruises, Friction Burns, Sore and "Glass" Arms, Abrasions, "Strawberries."

A most satisfactory first-aid measure and a help in returning the player as quickly as possible to the game, is the prompt application of

Antiphlogistine

It is soothing, repair-stimulating and bacteriostatic.

Sample to coaches, trainers and athletic directors.

**The Denver Chemical
Mfg. Co.**

167 Varick St.

New York



BASEBALL COACHING KIT

18 BOOKLETS—\$1.65

Coaches Instructions to

**BATTERYMEN
1ST BASEMEN
2ND BASEMEN**

**3RD BASEMEN
SHORT STOPS
OUTFIELDERS**

2 Copies of Each of Above Plus

1. Organizing the Pitcher's Thinking
2. Practice Work with Pitchers
3. Qualifications of Baseball Players
4. Extra Dividends in the Batting Order
5. Practice Session Talks
6. Signal System for the Coach

Order from

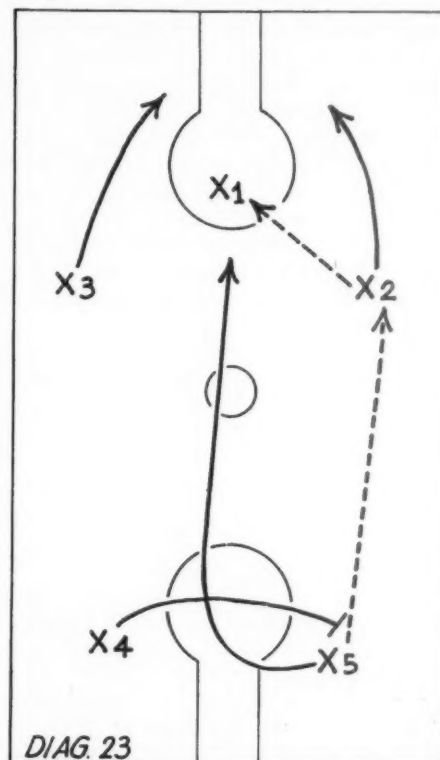
H. S. DeGROAT, Baseball Coach

B. Dept., Springfield College, Springfield, Mass.

The 1939 Basketball Championships

(Continued from page 26)

and X2 passed in to X1 who used an excellent pivot shot. X1, our center, Keith Ingstad, 6 feet, 1 inch tall, was an adept at shooting baskets. If X1 did not shoot he fed the ball to X3 or X2. This offense required considerable long passing, but as I stated before, we had fair success in handling the ball on long passes.



If we broke slow, we set ourselves with three in and two back, as shown in Diagram 24. X4 and X5 handled the ball in the back court with X2 and X3 over near the corners with Ingstad in the hole. Here, we depended either on screens or Ingstad's pivot shot. I might add that in eighteen games, Ingstad averaged six baskets per game and made eight in the championship game. One play worked for us pretty well. We got two baskets directly from it. In the championship game, X5 dribbled in past X2 who took the ball on a bounce pass. X1 went over and screened for X3 who came in for a set-up shot taking the ball from X2.

When our slow break did not present an opportunity to screen, we simply used the give and go off the man in the hole and had fair success with it.



GYM MATS

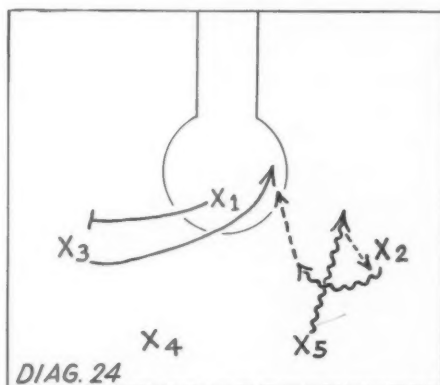
WRITE FOR CATALOGUE
PETERSEN & CO

5559 Baynton St., Philadelphia, Pa.

All in all, I believe I saw less of set offense and out-of-bounds plays than ever before. I believe that coaches are perhaps working on the theory that if they develop their teams in fundamental skills and allow them more freedom of play, then the team will get away from a tense mechanical play that sometimes "blows up" and quite frequently "freezes."

An outstanding point of interest in this tournament was that two of the pre-tournament favorites had guards for their strongest weapons. They were excellent at rebound work, very good ball-handlers and in one case the guard was one of the top three scorers in the conference during the season.

Of interest too, was the fact that I have never seen teams reverse form as much during a tournament. It seems that teams had their "off" days and then came back the next day to play much better ball. Three players who later made the all-state team played very poor ball the first day. In one case, a team lost its first



game by two points. A player on that team who was a very high scorer during the season made only one basket. Some will argue that he was taken care of in that game, but it still looks as though he should have done better.

One word about sportsmanship. I thought that the officiating was good and that the conduct of the players and coaches was good. The tournament was very well managed. But the consistent booing of the crowd, in which there were a lot of people booing decisions on both sides, leads me to believe that we have work to do with our home crowds during the season's play. I have noticed that in other gymnasiums this past year. I draw the conclusion (it's only my personal thought) that poor sportsmanship is no reflection on the state tournament nor its officials; but rather, the result of our own laxity in educating the crowds toward sportsmanship at home.

OHIO

Luther Hosfield

North High School, Akron

IT appears to me that high school basketball in Ohio during the past

for MAY, 1939

Meet WALDORF and SNAVELY at the NORTHWESTERN UNIVERSITY Coaching-School-by-the-Lake EVANSTON, ILL. AUGUST 14-26

HERE'S THE COMPLETE LINEUP:

Football

LYNN WALDORF **CARL SNAVELY**
Northwestern Cornell

BURT INGWERSEN
Northwestern

STEPHEN EPLER
Originator 6-Man Football

Basketball

DUTCH LONBORG **BRANCH McCracken**
Northwestern Indiana

Courses in swimming, track, athletic administration, training and intramurals will be given by members of Northwestern University's Coach staff.

WATCH COLLEGE ALL-STAR

During the entire two weeks of the school the College All-Star Football team which will play the New York Giants at Soldier Field will train at Dyche stadium. The practice sessions will be open to members of the Coaching School. Here is an unequalled opportunity to watch a staff of the nation's greatest coaches prepare a team for a game.

TWO BIG WEEKS

Northwestern offers you an opportunity to spend two full weeks with a staff of the outstanding coaches in the country. The records of Waldorf, Snavely, Lonborg and McCracken stamp them among the most successful coaches in their respective sports. In addition to the coaches on the staff, supplementary lectures will be given by members of the All-Star College coaching staff.

ENJOY A GRAND VACATION

You combine study with pleasure at Northwestern. Located on the shores of Lake Michigan, Evanston is an ideal summer resort . . . excellent bathing beaches, Big League baseball . . . numerous golf courses . . . living quarters on the lake front . . . special accommodations for coaches with families . . . A vacation you will never forget.

K. L. WILSON, Athletic Director
Northwestern University, Evanston, Ill.

Please send me additional information on the Northwestern University Coaching School.

Name

Address

City..... State.....



LYNN WALDORF
Northwestern—Football



CARL SNAVELY
Cornell—Football



BRANCH McCracken
Indiana—Basketball



DUTCH LONBORG
Northwestern—Basketball

If you have DUST or WEEDS

on ATHLETIC FIELDS, TENNIS COURTS,
TRACKS, PLAYGROUNDS

This FREE illustrated 24 page book "The Clean, Easy, Inexpensive Way To End Dust" tells you the complete story on how to end annoying dust and eliminate undesirable grass and weed growth by the low cost Solvay Calcium Chloride method. Write for it immediately to Solvay Sales Corporation, Dept. 52, 40 Rector Street, New York, N. Y.

SEND
FOR
THIS
FREE
BOOK

SOLVAY
Calcium Chloride

CLEAN, ODORLESS
NON-STAINING TREATMENT
FOR ENDING DUST AND WEEDS

THE
CLEAN
EASY
INEXPENSIVE
WAY

TO
END
DUST!

season was noteworthy for its lack of outstanding teams. I do not mean to infer that poorer basketball was played, but rather that the general average of excellence was raised and no one team in any district completely dominated play. There was not a single school that could boast an undefeated record, and most of the better clubs had several set-backs. Upsets seemed to be the rule rather than the exception, especially in tournament play.

After watching the sixteen Class A finalists at Columbus, I was particularly impressed by the growing popularity of the zone defense. Fully half of the teams, including the championship Akron North squad, used this type of defense occasionally or entirely. Both Akron Garfield and Dayton Fairview used an exceptionally effective zone defense. The most popular varieties of zone seemed to be the 3-3 and the 2-1-2.

For the most part, the fast-breaking, rushing type of offense predominated. Very few teams depended on set plays, one of the exceptions being a very fine Bellefontaine team that used its center, six feet, seven inches tall very effectively under the basket.

Despite the no-tip-off rule and the fast-break style of play, a team without at least one very tall boy was seriously handicapped. Massillon, New Philadelphia, and Bridgeport were all fast, accurately shooting teams that lost because they were unable to cope with some tall center that they were forced to meet.

Akron North used both a 2-1-2 and a 2-2-1 type of zone depending upon the offense used against them. When playing a team that liked to work in under the hoop, or used a pivot, we employed a 2-1-2. The 2-2-1 was more effective against a team of set-shot artists or against one which liked to stick a big boy under the basket. With either type of zone, we played our forwards rather loose and alert for a fast break. This put the bulk of the defensive work squarely up to the three back men, whose duty it was to get the ball on the rebounds and to get the ball down the court to the forwards either by a long pass or by a fast dribble. We do not care for a lot of dribbling, but when a boy does dribble, he must drive hard and fast. Naturally, we kept in mind at all times that the fundamental use of the zone demanded playing the ball and constantly trying for interceptions followed by a fast break.

We waded through all opposition in tournament play by working on the theory that we must run faster and longer and shoot oftener than our opponents. We were greatly aided in this type of play by having a squad of ten players who could be interchanged without any loss of effectiveness. We almost invariably scored our margin of victory in the second half.



Dr. John B. Sutherland
Pittsburgh

WEST VIRGINIA UNIVERSITY

1939

Summer Coaching School

Aug. 7-12

Again!

The Nation's Leading Coaches!



Clair Bee
Long Island University



Earl Martineau
Michigan



Richard Harlow
Harvard



Dr. Marshall Glenn
West Virginia

ALSO

Track and Field
Football Scouting
Safety in Athletics

Baseball
Athletic Injuries

Boxing

Wrestling

Care of Equipment
Latest Sport Films

FEES—\$10.00 for the entire course. ACADEMIC CREDIT.
LIVING COSTS—\$1.50 per day for lodging and meals in fine dormitories.
Ask the COACH WHO ATTENDED THE 1938 School!

Alden W. Thompson, Dean, School of Physical Education and Athletics
West Virginia University, Morgantown, W. Va.

Please send me additional information about the 1939 West Virginia Coaching School

Address

Name

To me there is little personal satisfaction in coaching this race-horse style of basketball, but if that is what wins games and pleases the fans, that is what they shall have.

OKLAHOMA

Grady Skillern

Central High School, Tulsa

A GAIN Tulsa Central and Oklahoma City Central High met in the final game of the state tournament for the state championship. A similarly interesting and exciting game was played this year as in 1938 when Tulsa Central won 33 to 27. The score this year was 23 to 20, Tulsa Central again being the victor. Eight teams; Norman, Enid, Cushing, Ardmore, Stillwell, Lawton, Oklahoma City Central, and Tulsa Central were winners of the regional tournaments. Oklahoma City and Tulsa were seeded and placed in opposite brackets. Norman and Ardmore were also seeded and met Oklahoma City Central and Tulsa Central in the semi-finals.

The finalists had met once during the season at Tulsa in a very exciting game which was won by Tulsa 41-34. This broke a winning streak of eighteen games for Oklahoma City Central (their only loss during the regular season) and enabled Tulsa to continue on to an undefeated season, with twenty-four wins. Both teams were familiar with the other's offense and defense and they were practically equal in ability. Realizing this, both teams took the floor in the final game knowing that few errors could be committed by the team that would win. The result was one of the best high school games that I have had the pleasure of seeing.

Both teams used a strict man-to-man defense, switching only when a man was completely screened out of the defensive position. The players were all well drilled in defensive fundamentals and were able to slide through the screens in most cases. Each had a number of players that were good on their fakes and drives, and each team had some excellent shooters. The players were well-matched on defense and it took a lot of clever passing, driving and screening to free a man for a set shot.

Oklahoma City used a revolving offense that kept their players on the move all the time. They had a number of boys that were clever ball-handlers, could dribble well, and were dangerous shooters. This enabled them to get set for medium shots that had to be guarded and this also was a constant threat for driving in for set-ups. Tulsa played them loose on all revolving movements and only moved up close when we felt that they were going to shoot.

Tulsa used a revolving offense too, but just a little different in that they did not keep their players in motion all the time.

They Say an Army Marches on its Stomach



*... But can you
imagine a good athlete with a poor
pair of feet?*



Did you ever see an army march on its stomach? Of course not. That's just a fancy way of putting it. But there's no fancy way around the fact that the flying feet of an athlete are a first essential to *his* performance. That's why top-flight athletes invariably specify shoes of Genuine Kangaroo.

And just as Kangaroo shoes are an invaluable aid to champions, they are also invaluable to less experienced athletes who strive for every advantage that proper equipment will afford them.

Investigate shoes of Genuine Kangaroo. You will find that this leather is 17% stronger, weight for weight, than any other leather . . . 14% lighter at any given strength, adds zip and split-second dash to the efforts of its wearers.

You owe it to *your team* to specify Kangaroo when you order shoes.



**GENUINE
KANGAROO**
TANNED IN America

MARTY GILMAN

HEADQUARTERS
FOR FOOTBALL
FIELD
EQUIPMENT



TO PROTECT PLAYERS FROM PRACTICE INJURIES

USE!
FIGHTBACK
(Patents Pending)

THE ORIGINAL BLOCKING ARMOR

- Put on and off in a jiffy.
- Protects the vital parts of the body.
- Takes shock out of blocking.
- Designed to reduce the risk of injury in practice and to allow men to drill more vigorously.
- Tailor-made to fit legs and body. Custom built.
- Climax in football drills—hitting moving targets.
- Protection for both blocker and defensive player.
- Full speed blocking without the danger of bruises.
- Designed and used by the nation's leading coaches.

Price \$19.50 large size; \$17.50 small size.
Accept no substitutes!

STANDBACK

- STANDING Dummy, cotton, hair or air filled.
- Lightweight from 12 lbs. up.
- Price from \$8.00.

COMEBACK

- The only dummy that picks itself up.
- Used especially for down field blocking and individual development.

Price JUMBO \$66.00, ROLLO \$55.00.

SNAPBACK

- The dummy that fights back... recoil action.
- Suspended by rubber cable top and bottom.
- Used for tackling and blocking.

CHARGEBACK

- Sponge rubber protection pads for Pan type charging sled... security against existing dangers of a poorly padded spring.

Price \$30.00 for pair.

Tackling dummies \$15.00. Warner scrimmage machine dummies \$30.00. Humpback \$14.00. SPRINGBACK \$55.00.

Striking Bags, Duffel Bags, Carry All Bags and all other canvas products.

Originator and manufacturing specialist of football dummies.

Correctly engineered and priced as low as quality allows.

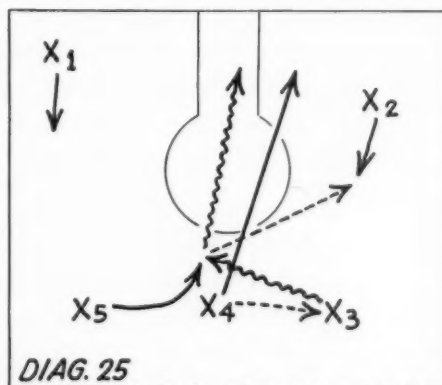
All prices F.O.B. Gilman, Conn.

MARTY GILMAN
GILMAN, CONN.

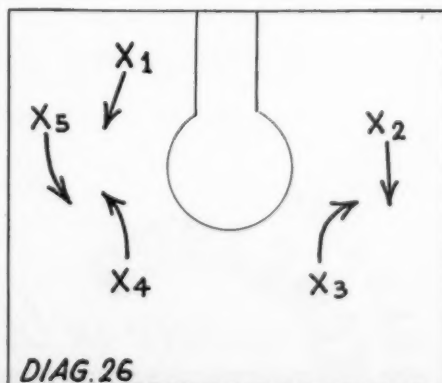
Tulsa was fortunate in having the taller center which enabled them to recover the ball on most rebounds. This was possibly the margin of difference of the two teams. Oklahoma City covered Tulsa rather closely after they had reached the scoring zone and the Tulsa boys had to work several plays before being able to get open for shots. Both teams had used a fast break during the season. Possibly Tulsa had used it more than Oklahoma City, but neither team found that they could use it to any advantage in the championship game. The reason for this was that no one cared to take a chance on loosing the ball.

The only school to use a zone defense with any degree of success was Norman. They had three boys close to six feet in height who were stationed in the back line near the basket. The other two players, who were fast and good ball "hawks", were in the front line. It was an ideal combination for a zone defense and their small home court had helped them develop a good defense under the basket. However, in the semi-final game with Oklahoma City, they were unable to stop the medium shots and Oklahoma City built up a lead that forced Norman to a man-to-man defense for the second half. This, of course, was what Oklahoma City wanted and they were able to drive for the basket for a number of set-ups.

Ardmore used a man-for-man defense in their game with Tulsa and having the tallest center in the tournament, they were able to control the ball on rebounds. This bothered the Tulsans as they had been accustomed to securing the ball on re-



DIAG. 25



DIAG. 26

BASES

That are
Safe



Practical, safe design, sturdy construction and tough materials make National bases the choice of schools and recreation directors in every state of the nation. This year finds further improvement in design; tougher and safer for use in any league. They are made to stand the grind of hard use and embody many new principles of base construction. By purchasing your bases direct from the manufacturer you get the lowest wholesale prices.

Softball or Hardball

Our new 1939 circular shows a complete line of softball and hardball bases. There are seven outstanding styles for handball and five styles for softball and playground use. Prices will suit your budget and playing needs. Send for our latest circular and wholesale prices today.

National Sports Equipment Co.
364-374 Marquette St. FOND DU LAC, WIS.

SPORTS MOVIES in Slow Motion

ON
TRACK and Field
FANCY DIVING

Full close-ups
All Champions

These are instructional films of 16 mm. size, made by a coach for coaches, and used by many collegiate and several foreign Olympic teams.

Reasonable Rates
For Rent For Sale

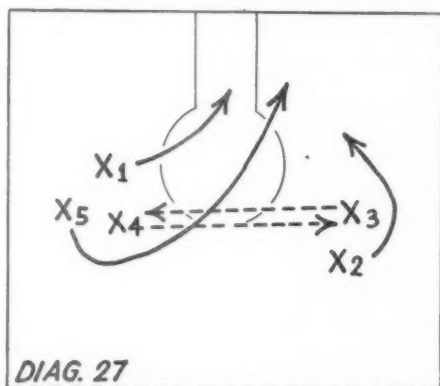
Write for Full Particulars

ATHLETIC FILMS
736 Ocean View Drive
Fullerton, Calif.

bounds during the season. Ardmore had their plays built around their center and a fast forward who could hit from most any position.

The basic formations and plays used by Tulsa and Oklahoma City were as follows:

Oklahoma City: X4 passed the ball to X3 and broke for the end line. At times, X3 passed back to X4, but in most cases, X3 passed to X5 and broke in front for a screen or dribble over in front of X5 and passed the ball to X5. If X5 could drive for the basket, he did. If unable to, he dribbled or passed to X2 who had moved out of the corner when X4 went to the end line.



This action kept up until the defense had been pushed back far enough to enable the offense to take a medium shot. There was a constant threat towards the basket and with the clever fakes Coach Breithaupt had given them, they had a smooth and effective offense. All their plays could start to the left as well as to the right (See Diagram 25).

Tulsa's Offense: X3 and X4 passed back and forth a few times while their team mates were getting into position, and to give time for a little rest. After this, a number of methods was used to start the play. One of these was for X3 to dribble towards X2 and pivot to the outside and pass the ball to X2 who had come out close to X3. X3 was in a position to shoot at times, drive to his right or left, or pass to X5 breaking to the basket, as indicated in Diagram 27. If X5 was not open, X1 broke to the basket. If X1 was not open, X2 dribbled towards the left side of the court, going as deep as possible, and passed to X4 for a dribble towards the basket. After X5 drove through, he came up the right side of the court and took the place X2 originally occupied. This action continued until the defense was back far enough to permit a good shot or a chance to drive to the basket. The player in the X2 position was able to shoot left-handed, which made the play strong to the left (See Diagrams 26 and 27). It is well to dribble with the left hand when driving to the left, enabling the player to drive close to the defense. The readers will readily notice that

LONG ISLAND UNIVERSITY COACHING SCHOOL

Manhattan Beach, Brooklyn, N. Y.

August 21-28

FOOTBALL

TEAM OFFENSE

"Potsy" Clark—Coach,
Brooklyn Dodgers

OFFENSIVE LINE PLAY

"Tad" Wieman—Princeton
University

DEFENSIVE LINE PLAY

"Bill" Kern—Carnegie Tech.

TEAM DEFENSE

"Bo" McMillan—Indiana
University

DOUBLE WING-BACK OFFENSE

"Andy" Kerr—Colgate University

NOTRE DAME OFFENSE

"Dutch" Bergman—Catholic
University

PASSING

Benny Friedman—C. C. N. Y.
Sid Luckman—Columbia
University

INDIVIDUAL LINE PLAY

"Gus" Shorts—Bucknell
John Miller—N. Y. University

BASKETBALL

SET OFFENSIVE PLAYS

Paul Mooney—Columbia
University

PIVOT PLAY ATTACK

Joe Lapchick—St. Johns

DEFENSIVE PLAY (man-for-man)

"Buck" Freeman—Long Island
University

OFFENSIVE PLAY AND

ZONE DEFENSE

Clair Bee—Long Island University

QUICK BREAK

Ed Killeher—Fordham University

OFFENSIVE, PASSING

AND ATTACK

Nat Holman—C. C. N. Y.

OFFICIATING

"Pat" Kennedy Dave Walsh
Jack Murray

NATIONAL BASKETBALL

Ned Irish—Dir., Basketball
Madison Square Gardens

SWIMMING

L. de B. Handley—Olympic
Champion and Coach

TRAINING

John Williams—New York
University

S. J. Picariello—Long Island
University

Football Specialties

KICKING

"Ken" Strong—N. Y. U.
Arthur French—Harvard

Football Demonstrations

by Brooklyn Dodgers

Basketball Demonstrations

by the National Championship
Long Island University
Varsity Squad

A SPECIAL COURSE IN

6-MAN FOOTBALL

Hugh J. Gaffney—Cornell
University

Prof. Fred Duffey—Fordham
University

Total Fee for all Courses . . . \$15.00

Send for Coaching School Booklet

Football Course only 10.00

Address:

Basketball Course only 10.00

Clair F. Bee, Director

Swimming Course only 5.00

Long Island University Coaching School
Manhattan Beach, Brooklyn, New York

NIGHT FOOTBALL BOOMS Under G-E Lights at Crown Point, Indiana

LOCAL interest in the Crown Point High School football team hit a new high last fall when G-E floodlights were installed on the athletic field and games were played at night. Gate receipts jumped 63 per cent, and residents who had not been able to attend Saturday afternoon games became ardent supporters of the team. The quality of the lighting brought universal praise from coaches, players, and fans.

When you plan to floodlight your field or to modernize your present equipment, take advantage of the G-E floodlighting engineering service. This service has given Crown Point High School, and other schools from coast to coast, low-cost floodlighting that provides adequate illumination for years after the original expense has been liquidated by increased gate receipts. More than 400 athletic fields have been lighted by General Electric, Schenectady, N. Y.

SEE THE G-E "HOUSE OF MAGIC" AT BOTH FAIRS

GENERAL  ELECTRIC

MEDART Telescopic GYM SEATS



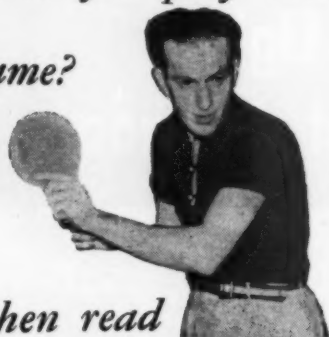
Safe to use and safe to operate . . . Employs the modern telescopic principle of operation . . . Occupies minimum floor area when "nested" thus freeing valuable floor space for class use . . . Easily installed in existing buildings as well as in new gymnasiums . . . One hundred per cent "Medart" built by the oldest manufacturer of gymnasium apparatus, basketball backstops, lockers, lockerobes, playground apparatus, and pool equipment.

Write for Catalog GS-2



FRED MEDART MANUFACTURING CO.
3542 DEKALB ST. ST. LOUIS, MO.

Do you like to WIN
when you play this
game?



Then read
**TABLE
TENNIS
COMES OF AGE**

By Sol Schiff

Twice United States Champion

Step-by-step he reveals the technique of the stars themselves, from first stroke through the fine points of championship strategy. 48 illustrations help you learn things right. \$1.25 at bookstores, or by mail from
HENRY HOLT AND COMPANY
Dept. A, 237 Fourth Ave., N. Y. C.

INDIANA BASKETBALL SCHOOL

AUG. 14-18, 1939

- | | | |
|---|--|---|
| ★ | H. C. CARLSON
Univ. of Pittsburgh
Demonstrations
by Pitt Players | ★ |
| ★ | GLENN CURTIS
Indiana State | ★ |
| ★ | EVERETT CASE
Frankfort, Ind., H. S. | ★ |
| ★ | CLIFF WELLS
Logansport, Ind., H. S. | ★ |

For Complete Information Write

CLIFF WELLS
DIRECTOR
BERRY BOWL

Logansport

Indiana

this is a combination of revolving play with a double screen. We had never used the combination before but found a lot of possibilities during the season. However, this offense will not function without the proper personnel.

During the season we encountered a number of different defensive situations and had to develop strong play to the outside as well as down the middle and as another check, we used a play to the center with bounce passes from X3 and X4 and had them drive through for a return pass or fake.

SOUTH CAROLINA

Class B

Lyles Alley

High School, Taylors

OUR state is divided into nine districts. Each district is divided into Class A, B and C. A student body of 125 and under—Class C; a student body of 126-400—Class B; a student body of 401 and over—Class A. District tournaments are held for both boys' and girls' teams, and the winners of each district enter tournament play for the state championship. The girls hold their tournament in Orangeburg, while the University of South Carolina at Columbia invites the boys to play there.

The state tournament, while it may be termed successful, could easily double in interest and attendance if more of the district winners would participate in Columbia. However, most of the larger schools frown on this because they do not receive anything toward having their expenses paid to the tournament.

The tournament this year was one of the best ever held, the attendance being around 5,000. About 2500 saw the final games. Most of the teams played a man-to-man defense, using zone principles against set plays.

Our team has been lucky in going through the past two years of district and state tourney play without a defeat. Our district, perhaps, is one of the strongest in the state and when a team gets through this tournament, it usually wins out.

Those scouting our team would say that we have no system about our play, and probably they would be justified in saying this. However, we strive in all of our practices to screen. We never run a set play. We try to run screen plays from natural screens. That is, we let a boy get his own guard in position to be screened. By doing this, we have five boys who are able to meet defensive play and who are constant threats all the time. We believe in a fast break and use it against teams that are weak on this point. We have never been successful with out-of-bounds plays and, therefore, never use them.

Our defense is strictly a man-to-man and we stick our men close all over the

floor. By playing a rushing man-to-man defense, we have been very successful in intercepting bad passes and turning them into scores. However, if we get off to a good lead, we then drop back and pick up the opponents as they cross the center line. Our practice sessions are one hour.

Judging from season and tournament play this season, I believe that the boys have adapted themselves to the new rules and the game is not as fast and strenuous as it seemed to be last year.

WASHINGTON

Elmer Huhta

High School, Hoquiam

THE Washington state high school basketball tournament is comprised of sixteen teams and has been held at the University of Washington in Seattle since its inauguration in 1923.

This year's win was Hoquiam's first state championship in eleven times as a representative to the tournament from the Southwestern district of the state. It has been my good fortune to have seen practically all of the sixteen tournaments, so far held, as a player, spectator, and coach. It was the opinion of all of the coaches and spectators at the last tournament that recent rule changes have aided the game from the standpoint of spectator appeal and more alert coaching.

The university this year, with the new sudden-death rule of over-time play, allowed the two contending coaches previous to each game to decide which rule would apply during the game, the new rule or the full three-minute rule of last year. The three-minute rule was accepted in practically every case, coaches and officials at the tournament feeling that the element of luck was predominant in the sudden-death rule for over-time play.

For the past two years the length of the tournament has been extended to four days, which made it possible for each team to play once a day. The same rule will probably prevail for next year. A change has been made, to be effective next year, in the number of members in each squad. This year each squad was limited to nine active players; next year the number will be ten.

All teams at the tournament held up well. This may have been a result of a noticeable increase in the number of zone defenses used. Last year only two teams used the zone while this year it was used by eight. Some used it entirely while other teams employed it against clever screens which were used by teams like Lewis and Clark of Spokane and Longview. Although the fast-break was used to great advantage by several teams, including Longview, I believe that the slow-break was more in evidence.

Hoquiam and Longview met in the



"IT'S A SWELL JOB"

IT
WILL
PAY...

..... TO CALL IN A MIDLAND MAN BEFORE
YOU RE-FINISH YOUR GYM FLOOR.

CHOOSE A FINISH BY FAIR COMPARISON!
WE WILL BE PLEASED TO DEMONSTRATE THE
ATTRACTIVE, DURABLE and RESISTANT QUALI-
TIES OF

MIDLAND *Special*

GYMLOH

Non-Slippery GYM FINISH

A synthetic resinoid finish of the famous Midland quality.
Does not rubber-burn. Easy to apply. Easy to maintain.
SAVE with GYMLOH.

"MIDLAND MAINTENANCE SERVICE"

MIDLAND

CHEMICAL LABORATORIES, INC.

DUBUQUE,

IOWA



SAND KNIT AWARD SWEATERS

*for Varsity Wear
Service Stripes and Chenille Letters*

FOOTBALL

Jerseys—Football Pants—Hose

BASKETBALL

Shirts—Pants—Warm-Ups

SAND KNITTING MILLS CO.

Manufacturers of Exclusive Knit Goods and Clothing for Athletic Wear

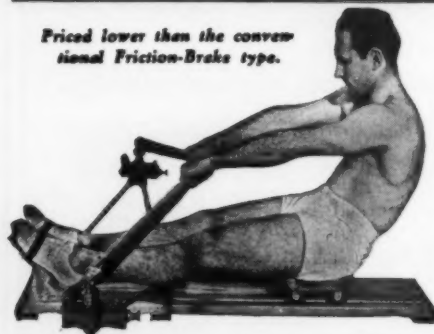
1714-20 N. DAMEN AVE.

CHICAGO, ILLINOIS

And Now!

**A POPULAR-PRICED
Hydraulic ROWING
MACHINE by-
MEDART**

*Priced lower than the conven-
tional Friction-Brake type.*



Approximately 66% lower price. Now within the reach of every gym. Manufactured and guaranteed by "Medart" the oldest manufacturer of Gymnasium Apparatus, Basketball Backstops, Telescopic Gym Seats, Lockers, Lockerobes, Playground and Pool Equipment.

Write for complete details

FRED MEDART MFG. CO.
3542 DeKalb St., St. Louis, Mo.

NORTH CAROLINA UNIVERSITY COACHING SCHOOL

August 21-September 2, 1939

The courses to be offered in the University of North Carolina's eighteenth annual coaching school include football, basketball, baseball, track and field, boxing, wrestling, and training and conditioning.

The school will be conducted under the leadership of Robert A. Fetzer, director of athletics at the University of North Carolina. Instruction will be given by the members of the coaching staff of the University.

The staff of instruction will include: Director Fetzer, Raymond Wolf, W. F. Lange, John Vaught, P. H. Quinlan, Bunn Hearn, M. Z. Ronman, M. D. Ranson, and John Morriss.

The registration fee of ten dollars will cover tuition for all courses and dormitory room rent. No additional charge will be made for rooming accommodations for coaches' wives.

● *For illustrated announcement,
address*
Secretary E. R. RANKIN,
Chapel Hill, N. C.

semi-finals in one of the greatest games of tournament history. Both teams used a zone, Hoquiam a 3-2 zone defense and Longview a 2-1-2. The Hoquiam-Longview game was the only game of the tournament to go into over-time play. Longview had the lead six times while Hoquiam led eight times during the regulation period of play, and the score was tied six times. The two teams were never separated by more than three points. Hoquiam took forty-four shots at the basket and hit nine. Longview took forty-five shots and also hit nine. Hoquiam had twelve attempts from the free-throw line and made seven. Longview had twelve attempts also and made six of them good. The game was finally decided by foul shots in the over-time period, Hoquiam making two for two, Longview one for two. The final score was 25 to 24.

The most noticeable feature of the game was the speed and the close checking employed by both teams. A person might think that with both teams using a zone the play would be uninteresting. But it was very much the opposite with both teams passing fast and well to set up their shots. The ball frequently went over to the opposition after only one attempt from the field.

As for our type of basketball, I do not believe that it varies from play in other states. We use many drills for ball-handling, dribbling, foul shooting, and shooting from the field. During the season we stressed play conditions and situations, employing many fundamentals. In defense we used the 3-2 zone defense. The players shifted and faced the ball with each player responsible for a zone depending upon the position in which the ball happened to be. The players in the front line were fast so as to be able to cover the sides and the front and still be able to take care of any man that might be used in the front half of the free-throw circle. The two men in the back were tall and rugged to take care of all rebounds. It, of course, makes for an ideal combination if one of the boys underneath the basket is adept at bringing the ball down the floor.

The zone is a comparatively easy defense to coach and is a defense from which a fast break can be used. Because it is easy to teach we spend most of the time in the early season on individual guarding, particularly footwork and the defensive retreat. A good part of our season is given to the practice of a switching man-for-man defense, which, by far, is the most difficult defense in basketball. We used both defenses during the past year depending upon the opposition and the situation in the game. The man-for-man was used to good effect in an aggressive manner while checking the entire floor and switching in any anticipation of a screen.

On offense we had two deliberate plays that are more or less universal. One play

worked down the side line with the guard receiving the ball on the outside after passing to the forward who had broken from the corner. The other play was out in front with one guard screening for the other. This was usually a starting play for other screens. Practically all of our screens were moving screens with the receiver using the passer to set up the shot. We kept the passes short which were conducive to better screens with each pass a potential screen. We attempted to make our offense more difficult for the defense with a careful use of stops and starts. We tried to keep the keyhole open for breaks and the ball comparatively in the center away from the close side lines and corners.

Because of the popularity of the zone defense, tactics against it had to be different. We played our men in the shooting areas, depending upon the type of zone used by the opposition.

We tried to leave our best ball-handlers and shots out in front. This we used also against the man-for-man defense.

(Continued in the June issue)

Training for the Shot Put

(Continued from page 10)

A very valuable asset which this man has is that he almost invariably makes his best put when the competition is keenest. Another fine characteristic is that when a mark has once been attained, he seldom falls below it in his subsequent contests.

The accompanying pictures show some successive steps in Hackney's putting, and naturally bring out some faults. One of these is that he has a tendency to hold the left arm a little too tense. More of a relaxed dropping of the arm would have a tendency to relax the whole body. Another fault which sometimes creeps into his action is that his left foot gets too far to the left on his second movement, causing too wide a stance for the put. This, as well as his sometimes starting too fast, causes his right hip to come into action too soon. This has a tendency to make him drop his hips too low, producing a lull in the action across the ring which, of course, is detrimental.

In all discussions of shot putting the question of the angle at which the implement should be delivered is sure to arise. It seems that an angle of approximately 40 degrees suits this performer best. As with all shot putters, the trajectory of some of his puts is a little lower than this.

To sum up, I believe that the points involved in shot putting may be brought out better by pointing out the mistakes and good points in this man's form, than by a series of fundamental rules laid down in a cut and dried manner. It is hoped that some helpful suggestions may be obtained from this write-up.

for MAY, 1939

COLOR

BASEBALL
SOCCER
SOFTBALL
FOOTBALL
HOCKEY

MAKES
YOUR TEAMS
SPARKLE!

—and all colors
sparkle in

Write TODAY for
Kahnfast 21-color
Swatch Folder!

KAHNFAST SATINS
444 FOURTH AVE. NEW YORK

JACKETS
EMBLEMS

DAVY O'BRIEN
WILL COACH AT

ST. JOHN'S
ACADEMY

DELAFIELD, WISCONSIN

SUMMER CAMP

(June 25-August 19)

AND USE THE

PASSTIMER

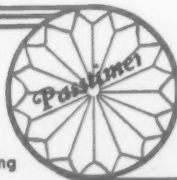
FOR TEACHING

PASSING ACCURACY

For information on camp
write to Col. F.W. Mouso

E. O. GILLEN
CORPORATION
1693 N. Water St.
Milwaukee, Wisc.

Patent Pending



Seventh Annual
BUTLER UNIVERSITY
COACHING SCHOOL
August 7-12
Indianapolis, Indiana

FOOTBALL

PAUL BROWN—Massillon H. S.—Massillon, Ohio. Four consecutive state championships. Lost one game in four years.

RAY BAER—Manual H. S.—Louisville, Ky. National Interscholastic Champions.

JOHN DA GROS—Nationally known football coach and author.

BASKETBALL

PAUL HINKLE—Butler University. Producer of nationally known quintets. A natural basketball system. 24 hours of instruction in this system. Demonstrations by Butler varsity players. Round table discussions—individual instruction—motion pictures—recreation.

THREE HOURS CREDIT

Tuition \$15.00 Board and Room \$10.00

For full information write

PAUL HINKLE

Butler University, Indianapolis, Indiana

Football Rules for Next Fall

How many yards did your teams lose last year through penalties?
How many yards would your teams have lost, had your players known the rules thoroughly?
Try Teaching them with Pictures. It's an Easy, Clean and Sure Way.

USE THE
PENALTY SAVER RULE BOOK
FOR
PLAYERS AND COACHES
WRITTEN BY
PAUL SWAFFIELD
EASTERN FOOTBALL OFFICIAL
AND
AL McCOY
HEAD FOOTBALL COACH, COLBY COLLEGE

DISTRIBUTED BY
THE ATHLETIC JOURNAL PUBLISHING CO.
6858 Glenwood Avenue
Chicago, Illinois

Shows the players, with pictures, just what they cannot do during a game. Every rule affecting the conduct of players during the playing of a game is illustrated. 32 Pages of graphic, instructive pictures to make a definite, lasting impression on your players to help them avoid unnecessary penalties.

Order Blank for The Athletic Journal Illustrated Football Rule Book

Price Single Copy up to 11 — 25 cents each
12 to 24 copies — 20 cents each
25 or more copies — 15 cents each

Athletic Journal—6858 Glenwood Ave., Chicago, Ill.

Enclosed please find.....for which send me.....copies

Signed

Address

City State

INDEX TO ADVERTISERS

	Page
American Olympic Committee...	38
Athletic Films	50
Bike Web Mfg. Co. Inside Front Cover	
Butler University Coaching School	55
Continental Steel Corp.....	44
Crouse-Hinds Co.	43
Daytona Beach Coaching School.	45
DeGroat, H. S.....	46
Denver Chemical Mfg. Co., The..	46
Dolge Co., The C. B.....	36
Duluth S.T.C. Coaching School...	32
General Electric	51
Georgia Coaching School.....	38
Gillen Corp., E. O.....	55
Gilman, Marty	50
Goldsmith Sons, Inc., The P.....	27, 28, 29, 30
Hillerich & Bradsby Co., Inc.....	37
Holt & Co., Henry.....	52
Indiana Basketball School.....	52
Ivory System.....	Back Cover
Kahnfast Satins	55
Kangaroo Leather Association...	49
Knox Gelatin Co.....	3
Long Island University Coaching School	51
Medart Mfg. Co., Fred.....	52, 54
Midland Chemical Co.....	53
Mills Memorial Kicking School, LeRoy N.	40
National Sports Equipment Co...	50
N. Y. State Summer Coaching School	43
North Carolina University Coaching School	54
Northwestern University Coaching School	47
Petersen & Co.....	46
Reach, Wright & Ditson, A. J.....	35
Riddell, Inc., John T.....	Inside Back Cover
Sand Knitting Mills Co.....	54
Seamless Rubber Co., Inc., The..	31
Sherman Hotel	42
Solvay Sales Corp.....	48
Spalding & Bros., A. G.....	25
Tennessee Coaching School.....	40
Tetra Bandage Co.....	45
Toro Mfg. Co.....	41
United States Rubber Co.....	1
West Disinfecting Co.....	44
Westinghouse Electric & Mfg. Co.	38
West Virginia University Coaching School	48
Whittlesey House	34
Wilson Sporting Goods Co.....	33
Witchell-Sheill Co.	4
Worthington Mower Co.....	39



RIDDELL

THE HOUSE OF QUALITY and SERVICE



Style A NATIONAL FEDERATION
APPROVED \$10.00
Style 1. SCHOOL PRICE 8.00
Style 2. SCHOOL PRICE 6.00



Style 1 Football. SCHOOL PRICE \$7.50
Outseam. SCHOOL PRICE 5.00



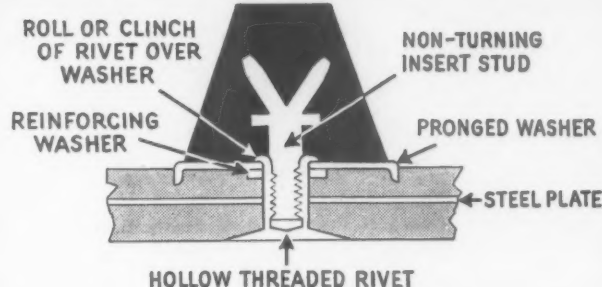
Style V Volley Ball. SCHOOL PRICE \$6.00



Style O. SCHOOL PRICE \$6.00
Style OX. SCHOOL PRICE 6.00



Style X. SCHOOL PRICE \$5.00
Style XX. SCHOOL PRICE 5.00



1939--IMPORTANT--1939 CLEAT CHANGE

The Rules Committee has made it mandatory that cleats be $\frac{1}{2}$ inch on the tread end and that they be conical in shape. The Rules Committee also has recommended that the cleats be of soft rubber and that they be "male" in type, that is the bolt in the cleat instead of projecting from the shoe. Our No. 1 Cleat since 1922 has been conical in shape, has been made of pliable rubber and has been $\frac{1}{2}$ inch on the end.

In 1922 we applied for a patent to cover our construction on "female" cleats. In 1923 we applied for a patent covering "male" cleats. This construction as far as the sole of the shoe is concerned, we have used for the past twelve years in our Track shoes. We have always felt that this was a sounder construction than the "female" type of anchorage which we have been using in our Football shoes. In short, we have felt that our track construction was sounder mechanically than our football construction.

We have wanted to change to this type of construction for a number of years, but since we were not having trouble with Riddell shoes when Riddell cleats were used on them, we could not see our way clear to go through the trouble of making the change. Now since the Rules Committee has recommended this change, we welcome it as a step forward in improving our Football shoes.

1939—CLEAT PRICES—1939

Male No. 1 and No. 2 (per set 14) 30c
Female No. 1 to No. 12 (per set 14) 30c



89 Soft Toe. SCHOOL PRICE ... \$10.00



Style H. SCHOOL PRICE \$9.25



Style R. SCHOOL PRICE \$8.65
Style RX. SCHOOL PRICE 8.65

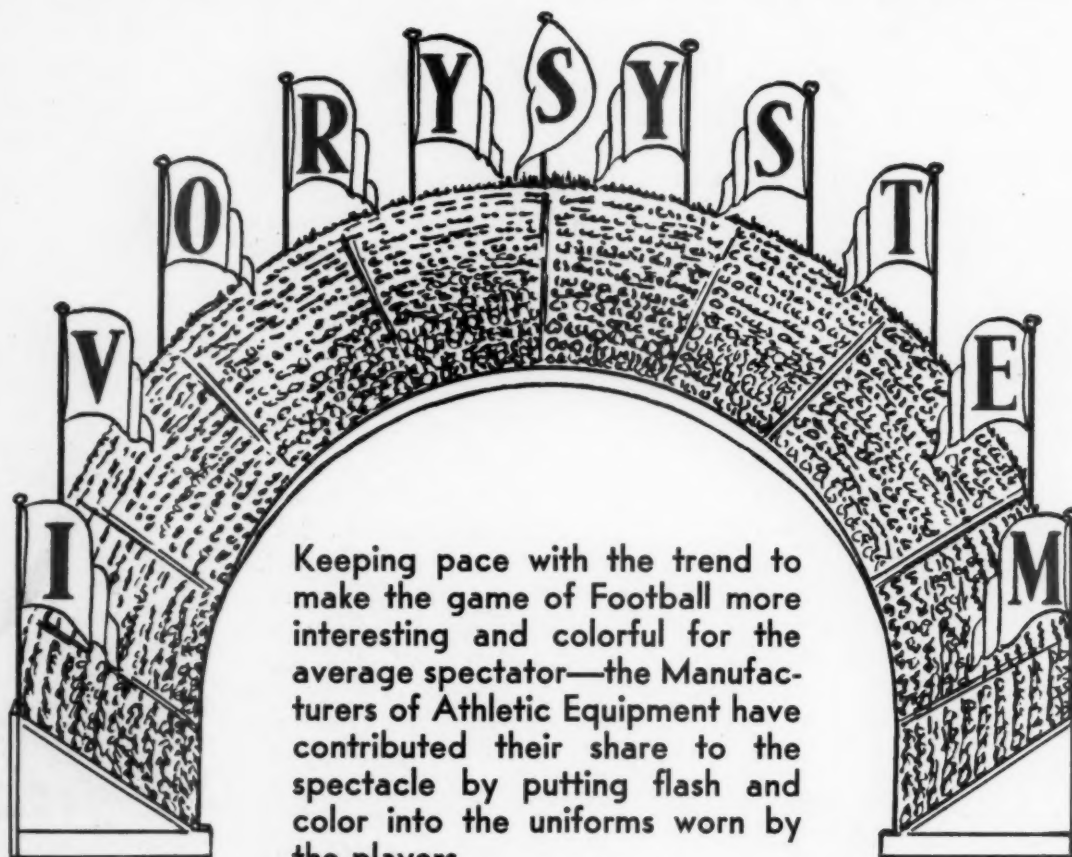


Style P. SCHOOL PRICE \$8.00
Style PX. SCHOOL PRICE 8.00



Style 77. SCHOOL PRICE \$7.00
Style 77X. SCHOOL PRICE 7.00

Reconditioners of **ATHLETIC EQUIPMENT**



Keeping pace with the trend to make the game of Football more interesting and colorful for the average spectator—the Manufacturers of Athletic Equipment have contributed their share to the spectacle by putting flash and color into the uniforms worn by the players.

Most of the spectators have little or no idea of the cost of this snappy regalia, and certainly no conception at all of the problem involved in keeping it clean and in serviceable condition between seasons—yes, even between games.

The IVORY SYSTEM—the first business of its kind in the country, and still first—has contributed its share to the colorful change by devoting its entire time, effort and energy for many years to the Reconditioning of every type of Athletic Equipment made by Manufacturers.

Players might still be wearing suits with a "Drab Age" tinge if it were not for the fact that the IVORY SYSTEM established an industry for keeping Athletic Uniforms looking smart and trim.

IVORY SYSTEM

SALEM

MASSACHUSETTS

PEABODY